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ABSTRACT

Vanguards in Training presents, in summary form, the National Training System's (NTS) Training Grant Program supported throughout the Nation by the National Institute on Drug Abuse (NIDA) to increase the skills, career mobility, and credentials of drug abuse prevention, treatment, and research personnel. The program summaries speak for themselves and give evidence of the time and effort given by program directors and their staffs. The NTS reflects the philosophy of career development found in each of the Branch's programs, and the conviction that training involves not only learning and development of skills but also the acquisition of credentials. Therefore, each training program supported by the Institute is concerned with the full development of the trainee. A resume of the purposes, provisions, and requirements for the Training Grant Program is described in the first section of this document. Summaries of individual projects which have been funded under each type of grant are then presented by state. Projected summaries were drawn from material available to the NTB at the time of initial funding; project outcomes are not included in the summary statements. (Author)

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National Institute on Drug Abuse

Vanguards In Training

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION

Vanguards In Training
jan 1976

Division of Resource Development
Manpower and Training Branch
National Institute on Drug Abuse
11400 Rockville Pike
Rockville, Maryland 20852

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PREFACE

Vanguards in Training presents, in summary form, the National Training System's (NTS) Training Grant Program supported throughout the Nation by the National Institute on Drug Abuse (NIDA) to increase the skills, career mobility, and credentials of drug abuse prevention, treatment, and research personnel. The program summaries speak for themselves and give evidence of the time and effort given by program directors and their staffs. The NTS reflects the philosophy of career development found in each of the Branch's programs' and the conviction that training involves not only learning and development of skills but also the acquisition of credentials. Therefore, each training program supported by the Institute is concerned with the full development of the trainee. Further, to encourage utilization of the NTS resources we have provided names, addresses, and phone numbers of persons responsible for the administration of each component.

A resume' of the purposes, provisions, and requirements for the Training Grant Program is described in the first section of this document. Summaries of individual projects which have been funded under each type of grant are then presented by State. Projected summaries were drawn from material available to the MTB at the time of initial funding; project outcomes are not included in the summary statements.

Lonnie E. Mitchell, Ph.D.
Chief
Manpower and Training Branch
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Contents

PREFACE iii

NATIONAL TRAINING SYSTEM (NTS) 1

I. TRAINING SUPPORT COMPONENTS 1

A. National Drug Abuse Center for Training and Resource Development 1

B. Regional Resource Centers 2

C. Career Development Center 2

D. State Training Support Program 2

II. TRAINING DELIVERY COMPONENTS 3

A. Regional Training Centers 3

B. Free Clinics 4

C. Training Grant Program 4

1. Developmental Training Grants 4

2. Physician Education Program 5

3. National Research Service Award 6

TRAINING GRANTS SUMMARIES 7

Developmental Training Grants 9

Career Teacher Grants 45

National Research Service Grants 57

INDEXES

I. Drug Abuse Grants by State 73

II. Drug Abuse Grants by Institution 77

III. Subject Indexes 79

Developmental Training Grants 80

Career Teacher Grants 83

National Research Service Grants 91

THE NATIONAL TRAINING SYSTEM: AN APPROACH TO INTEGRATED TRAINING EFFORTS

The National Training System (NTS) has the responsibility for integrating and coordinating the various training functions and operations sponsored by the Manpower and Training Branch, Division of Resource Development. The system's components include the National Drug Abuse Center for Training and Resource Development, the Career Development Center, five Regional Training Centers, three Regional Resource Centers, the Physician Education Program, the State Training Support Program, Developmental Training Grants, and National Research Service Awards.

NTS has instituted three processes within all NIDA-funded training efforts: needs identification, resource identification, and resource exchange. All training resources are concentrated on meeting these needs. In addition, information exchange mechanisms have been set up so that training activities can build on and utilize existing resources rather than start anew.

Through the NTS, NIDA's efforts are aimed at providing the States with technical assistance, funding, and resource development; building State capacity and capability to manage and operate drug abuse programs and services; and developing credentialing processes for drug abuse programs and workers.

The policy of increasing State responsibility for meeting the training needs of drug abuse workers represents a new focus for NTS. As a result, a substantial portion of NTS funds has been allocated for training assistance to help State agencies identify their training needs. The two NTS programs most affected by this policy change are the National Drug Abuse Center for Training and Resource Development (NDAC), whose primary responsibility is resource development and training assistance; and the State Training Support Program (STSP), whose function is to work directly with the States to implement this new policy successfully.

The change brings with it such responsibilities as establishing systematic information delivery and evaluation procedures, developing credentialing standards, coordinating drug abuse training, and exploring alternative training services. Critical to NIDA's new emphasis on strengthening State capabilities is the development of the National Training System's capacity to effect the necessary changes in the various State organizations, plans, and programs. The essence of all training coordinated by the NTS is the enhancement of the quality of service to the client.

I. TRAINING SUPPORT COMPONENTS

A. National Drug Abuse Center for Training and Resource Development

The National Drug Abuse Center for Training and Resource Development (NDCA), located in Arlington, Virginia, is the hub of the National Training System. The center takes an active role in the assessment of training needs of drug abuse workers, the validation of existing training materials and programs, the development of new materials, and the identification of training resources nationwide. The center is responsible for five key functions:

- Developing, producing, validating, and evaluating training materials
- Delivering training assistance to State agencies and programs
- Delivering training assistance and sponsoring special projects for NIDA
- Providing the necessary linkages between all components of the National Training System
- Coordinating the exchange of information advances in the NTS network

Operated under contract with NIDA by Systems Development Corporation (SDC), the center includes personnel and resources drawn from A. L. Nellum and Associates of Washington, D. C.; Health Control Systems, Inc., of Chicago; the DARE Foundation of Los Angeles; and Arthur D. Little, Inc., of

Cambridge, Massachusetts—each operating under a subcontract with SDC.

Materials developed by the center are available at cost from NDAC's National Drug Abuse Materials Distribution Center, P.O. Box 298, McLean, Virginia 22101.

Further information may be obtained by writing:

Director
National Drug Abuse Center for Training and Resource Development
1901 North Moore Street
10th Floor
Arlington, Virginia 22209
(703) 524-4400

B. Regional Resource Centers

Established in July 1975, three Regional Resource Centers (RRCs) together with the National Drug Abuse Center form an integrated system for the delivery of drug abuse training assistance resources. The centers are located in Arlington, Virginia; Chicago, Illinois; and Berkeley, California. They provide technical assistance to the States in needs assessment, training design evaluation, research, and career development.

The major tasks of the RRCs include:

- Collection of management information
- Developmental training assistance
- Information dissemination and exchange

The centers reflect NIDA's dual emphasis on bringing training assistance and resource development close to the States and on training State agency staffs to design and manage their own training programs.

The RRCs are critical to the implementation of the National Training System. They are linked to the NDAC and operate as one national resource center with three regional offices.

Further information may be obtained by writing:

Director
National Drug Abuse Center/Regional Resource Center
1901 North Moore Street
Arlington, Virginia 22209
(703) 524-4400

C. Career Development Center

The Career Development Center (CDC), originally operated as the National Institute for Drug Programs at Marjorie Webster College, Washington, D.C., is mobilizing a number of colleges and universities in the corporative development of degree programs (A.A., B.A., and M.A.) based on actual competence requirements. The resulting models, emphasizing non-traditional higher education approaches such as extended and external degree modes, will have three key objectives:

- To meet the needs of ex-addict and paraprofessional personnel who want academic credentials as well as professional growth to enhance their potential for career advancement
- To enable full-time drug abuse workers, having neither the funds nor the time to attend a conventional oncampus program, to obtain a college degree
- To raise the standards of treatment, reduce treatment staff turnover, increase levels of skills, and improve feelings of selfworth among drug abuse personnel

A central feature of the models being developed by colleges and universities working with the CDC is the integration of a competency-based evaluation system and the traditional academic process. The CDC is administered by the Center for Human Services.

Further information may be obtained by writing:

Dr. Avis Pointer, Director
Career Development Center
Center for Human Services
5530 Wisconsin Avenue, N.W.
Washington, D. C. 20015
(202) 654-2550

D. State Training Support Program

The State Training Support Program (STSP) provides direct financial support and technical assistance to States to develop training capabilities. The program does not impose specific training functions on the State. Rather, it provides assistance and coordination that States need to develop skills and techniques for assessing local training needs, developing programs, and establishing a system whereby training is evaluated based on job performance. Further assistance is provided through direct interaction on unique State needs, the encouragement of peer support, and through resource exchange among States and other NTS programs.

The STSP program is responsible for the following activities:

- Training Single State Agency staff in needs assessment skills required to determine local training needs
- Providing assistance to SSAs in developing licensing, credentialing, and accreditation

standards and procedures for drug abuse programs and workers
- Acting as a resource and information exchange among the States and other components of the NTS
- Assisting the SSAs in developing and implementing a system to evaluate the effect of training on job performance
- Providing direct financial support for States to develop their own training capabilities

Further information may be obtained by writing the project officer:

Mr. George Ziener
Education Administrator, National Institute on Drug Abuse
Division of Resource Development
Manpower and Training Branch
Room 640
11400 Rockville Pike
Rockville, Maryland 20852
(301) 443-6720

II. TRAINING DELIVERY COMPONENTS

The NTS also supports direct training services via the Regional Training Centers, the Free Clinics, and the Training Grant Program. Following are descriptions of these training delivery components.

A. Regional Training Centers

The five Regional Training Centers (RTC) supported by the Manpower and Training Branch conduct short-term courses for drug workers. The centers were initially established under the National Institute of Mental Health to provide training for the staff of treatment programs funded by the Narcotic Addict Rehabilitation Branch. These regional centers have expanded under NIDA auspices to provide training to treatment personnel of State, local, and Federal drug programs. The five functions of the RTCs are:

- Training State drug abuse personnel in effective implementation of State training plans
- Assisting State drug abuse personnel in the areas of credentialing, certification, licensing, and accreditation
- Recruiting professional and paraprofessional personnel for participation in specific training and training assistance programs
- Assisting drug abuse personnel participate in established career mobility processes
- Providing consultation to Single State Agencies in planning, evaluating, and delivering training programs

Approximately 80 percent of the training courses delivered by the RTCs were developed by the National Drug Abuse Center. These courses include:

- Residential Treatment Managers Course
- Methadone Treatment Managers Course
- Making a Difference with Youth
- Drug Abuse: Fundamental Facts and Insights
- Training of Trainers
- Counselor Training: Short-Term Client Systems

There are other regionally developed courses available at the RTCs. Inquiry can be made at the respective centers. Further information may be obtained by writing the project officer:

Lonnie E. Mitchell, Ph.D., Chief
Manpower and Training Branch
Division of Resource Development
National Institute on Drug Abuse
Room 640
Rockville, Maryland 20852
(301) 443-6720

or by writing or calling the Regional Training Centers:

University of Miami
Dr. Thomas Cahill, Director
Applied Social Sciences
Post Office Box 8074
University of Miami
Coral Gables, Florida 33124
(305) 284-4535

University of Oklahoma
Dr. Rebecca Cohn, Director
Mr. Michael Roe, Deputy
National Drug Education Center
1734 Halley Drive
Norman, Oklahoma 73069
(405) 325-7211

Yale University
Dr. Jean Thomas, Director
Mrs. Louise Nelson, Deputy
Drug Dependence Institute
Department of Psychiatry
Yale University
1211 Chapel Street
New Haven, Connecticut 06519
(203) 436-0010

Chicago Training Center

Mrs. Barbara Bedford, Director
Addiction Science Services
8th Floor
624 South Michigan Avenue
Chicago, Illinois 60605
(312) 431-0106

Berkeley, California

Charles Austin, Director
Social Action Research Center
Claremont Hotel
Berkeley, California 94704
(414) 548-5112

B. Free Clinics

Free clinics, staffed by physicians, social workers, psychologists, and paraprofessionals are receiving training services from the National Free Clinic Council. This NIDA-sponsored training is available to clinic staff in the following curriculum areas:

- Counselor training
- Pharmacology of drug abuse
- Family therapy
- Medical aspects of drug dependence
- Therapeutic approaches to drug dependence

Further information may be obtained by writing:

Mrs. Sara Glenn, Director
National Free Clinic Council
1304 Haight Street
San Francisco, California 94117
(415) 864-6232

C. Training Grant Program

The NIDA Training Grant Program includes developmental training grants, the Physician Education Program, and the National Research Service Awards. In the early stages of the program's development the main emphasis was on the provision of long-term professional training. With the creation of the NTS, training programs have responded to the needs of community-based programs, paraprofessionals, and ethnic minorities. The professional training components consist primarily of the Physician Education Program and the National Research Service Awards. Following is a description of each program.

1. Developmental Training Grants

Developmental Training Grants are designed to meet the needs of professionals and paraprofessionals working in the field who need long-term in-depth credentialed training. Five types of developmental training are currently supported by the branch:

a. External Degree Programs

The Institute's External Degree Program offers support to community colleges and Single State Agencies to develop Associate of Arts and credentialed training. The purposes are (a) to fund a limited number of community colleges for developing, conjointly with the Single State Agency for Drug Abuse, model training programs for paraprofessionals working in drug treatment and rehabilitation; and (b) to validate and disseminate these models nationally to community colleges and Single State Agencies.

The training enhances opportunities for career mobility by leading to an Associate of Arts degree through a combination of the following elements: (a) award of academic credits for relevant and validated past and present work (academic, occupational or experiential); and (b) successful completion of accredited didactic and clinical training having special relevance to the drug field. Thus, the training model developed enables a trainee to continue to be employed in his drug treatment/rehabilitation program while pursuing his degree.

Grants are made to junior and community colleges, to 4-year schools having a 2-year program leading to an Associate of Arts degree, and to Single State Agencies. Requests are limited to 3 years and to $35,000 direct cost for the first year and $30,000 direct cost for each succeeding year. Institutions currently training mental health personnel at the A.A. level may apply for funds up to $20,000 per year direct cost for 3 years to include in the extant curriculum a concentration in drugs.

b. Inservice Training Programs

The Institute funds the development and implementation of a limited number of model inservice training programs for drug abuse treatment/rehabilitation professional and paraprofessional staff. The models, once developed and tested, will be made available to the Single State Agencies and others expressing an interest.

Grants are made to public or nonprofit drug abuse treatment/rehabilitation programs. Requests are limited to 2 years and $35,000 per year direct cost.

c. Interagency and Interdisciplinary Programs

Interagency and interdisciplinary training fosters a broad-based community concern for the drug abusing client and stimulates cooperation toward more effective treatment outcome. Specifically, the programs are intended to foster cooperation among criminal

justice, drug treatment, and community college or university personnel.

Grants are made to Drug Treatment Programs, probation or parole offices, and community colleges or universities. All applications are developed jointly by the three agencies mentioned and are jointly sponsored. One of the three agencies acts as the legal applicant. Requests are limited to 2 years and to $35,000 per year direct cost.

d. Continuing Education Programs

The Institute's Developmental Training Grant Program for health and health-related professionals provides an opportunity for accredited continuing education in drug abuse to staff of agencies serving drug abusing clients and families. Models developed are disseminated to the Single State Agencies.

Grants are made to schools and departments of continuing education and to public or nonprofit private community agencies specializing in continuing education. Grants are limited to 2 years and to $35,000 per year direct cost.

e. Graduate Student Programs

The Institute's Developmental Training Grant Program for graduate students preparing for clinical service careers in the drug field seeks to provide quality health care to the drug abusing client and his family by increasing the number and improving the quality of drug treatment and rehabilitation professionals. An equally important concomitant purpose is to introduce information about drug abuse systematically into the programs and curriculums of schools of nursing, education, and social work and into departments of psychology, sociology, anthropology, and other germane disciplines.

Direct grants are made to any public or nonprofit private agency or organization for teaching or trainees' costs. Grants are limited to 3 years and to $75,000 per year direct cost.

2. Physician Education Program

The Physician Education Program has two principal goals: (a) the development of medical school curriculums in drugs and alcohol, and (b) the education of practicing physicians about medical issues arising from abuse of drugs.

a. Career Teacher Program

The National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism jointly sponsor the development of curriculums by supporting, via the Career Teacher Program, training for medical school faculty. The purpose of the Career Teacher Grant is to train a medical school faculty member for a period of from 1 to 3 years to specialize in drug and alcohol studies and to develop curriculums at his university to improve the training for medical students in alcohol and drug abuse. By assuming the leadership role in his or her institution in the field of the addictions, the faculty member is also expected to involve himself in continuing education by seeking to interest people from the specialties in a common concern for medical issues related to drug and alcohol abuse.

The career teacher nominee is awarded a salary appropriate to the level of his academic rank at the graduate institution, not to exceed $25,000 annually from the funds provided by the grant. Supplementation of salary by the institution is acceptable. The grant also provides funds for a part-time secretary, equipment, travel, and research.

The applicant agency must be a school of medicine, an operational developing medical school, a college of osteopathy, or a school of public health. The nominee for the Career Teacher Award must have faculty status within the sponsoring institution prior to grant award. Any faculty member who holds a health professional degree in the health sciences or other health related field (e.g., M.D., D.O., Ph.D., Ed.D.) is eligible.

b. The "Five Objectives"

As a means to an even greater impact in physician education, the Division of Resource Development has established and is currently working toward the accomplishment of five objectives. These are:

Objective I	To survey career teachers and former career teachers to assess: (a) experiences, innovations, successes, and problems, as well as (b) the most successful and effective curriculum pieces
Objective II	To survey schools of medicine, dentistry, nursing, programs for physicians assistants and nurse practitioners to develop base-line data on the state of the art of drug and alcohol abuse in existing curriculums
Objective III	To submit to the National Board of Medical Examiners questions on drug and alcohol abuse
Objective IV	To develop an accredited course for training physicians for becoming: (a) treatment program staff; and (b) primary care physicians
Objective V	To collect and disseminate (nationally) prescribing guidelines

3. The National Research Service Award*

The National Research Service Awards were initiated in 1974 under authority of Public Law 93-348 (National Research Act) to provide predoctoral and postdoctoral training fellowships in specified areas of biomedical and behavioral research. The National Institutes of Health (NIH) and the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) provide awards to individuals and to institutions to support research training at the two agencies, at non-Federal public and nonprofit private institutions, and at domestic public and nonprofit institutions.

The National Institute on Drug Abuse (NIDA) provides support in the area of biomedical and psychosocial research for persons planning a career in research and/or teaching in the field of drug abuse.

a. Individual Awards

Prior to formal submission, an applicant must arrange for appointment to an appropriate institution and for acceptance by a sponsor who will supervise his training and research experience. Applicants must be sponsored by a domestic or foreign nonprofit private or non-Federal public institution that has both staff and facilities to provide the proposed research training in a suitable environment for performing high-quality work. Postdoctoral applicants may also be sponsored by a research unit at the ADAMHA and at the NIH with appropriate staff and facilities. Applicants must be citizens or have been lawfully admitted to the United States for permanent residency.

Predoctoral applicants must have completed 2 or more years of graduate work as of the proposed activation date of the award and must have completed a doctoral prospectus. The predoctoral annual stipend rate is $3,900 per annum.

A postdoctoral applicant must have received a Ph.D., M.D., D.D.S., D.O., D.V.M., O.D., Sc.D., Eng., D.N.S., or equivalent domestic or foreign degrees as of the activation date of the proposed fellowship. The award is limited to 3 years and the stipend level is determined by the candidate's relevant experience at entry. Stipends range from $10,000 per annum with no experience to $13,200 for 5 or more years of experience for the first year of the award. Annual increments of $400 are given.

b. Institutional Awards

A domestic public or nonprofit private institution may apply for a grant for a research training program in a specified area of research from which a number of awards will be made to individuals selected by the institution's training program director. Support for both predoctoral and postdoctoral trainees may be requested. Stipend levels for predoctoral and postdoctoral trainees are the same as those described above.

Further information on the Training Grant Program may be obtained by writing the Project Officer:

Mr. James F. Callahan
Mental Health Advisor
National Institute on Drug Abuse
Division of Resource Development
Manpower and Training Branch
Room 640
11400 Rockville Pike
Rockville, Maryland 20852
(301) 443-4922

*The provisions of this program are subject to any changes necessary as a result of Congressional action on pending legislation extending basic authorization for the program.

TRAINING GRANT SUMMARIES

Developmental Training Grants

DEVELOPMENTAL TRAINING GRANTS

ALABAMA

TRAINING PERSONNEL FOR DRUG ABUSE SCREENING PROGRAM

Man M. Kochhar, Ph.D.
Associate Professor of Pharmacy
School of Pharmacology
Auburn University
Auburn, Alabama 36830
(205) 826-4740
T02 DA00157 1973-1976

Trained workers are needed in the techniques necessary for analysis of drugs of abuse, especially for work in drug abuse screening program laboratories. Many problems of drug identification and street sample analysis are preferably submitted to laboratories not connected with the police. This program trains high school and junior college graduates for employment in drug abuse screening programs. It provides jobs in government, State and private laboratories.

The trainees are a mixture of rural and urban individuals from the disadvantaged areas of the South. They are recruited in cooperation with the Human Resources Development Center of Tuskegee Institute and with the Tuskegee Area Health Education Center Target Area. They are chosen on the basis of personal interest, grades, interviews, recommendations, and so on. The project assures its trainees of adequate financial assistance during the period of training. The university charges no tuition for the students and houses them in university dormitories during the time they are attending these classes.

Fifteen trainees at a time are given a 9-12 month period of training at Auburn University and several field sites. Most of the training time is spent on practical applications and various methods that are in use by laboratories doing this kind of work. Trainees also visit the laboratories in the area of Auburn to see how these procedures are actually carried out in the field.

After the training, the toxicology technicians are able to perform all the tests related to drug abuse screening and are capable of solving analytical problems associated with drug-monitoring procedures. Some of the screening procedures include ultraviolet spectroscopy, gas liquid chromatography, thin-layer chromatography, enzyme-multiplied immunoassay, and radio-immunoassay.

ACADEMIC CAREER-TEACHER AWARD (NON-MEDICAL)

Ruffer Johnson, M.S.W.
Instructor, Department of Social Work
Sponsor: Ray MacMair, M.D., Chairman Department of Social Work
Department of Social Work
Tuskegee Institute -- Third Floor
Thrasher Hall
Tuskegee, Alabama 36088
(205) 727-6325
T01 DA00299 1974-1975

This career teacher was trained to teach courses in the human services on narcotic addiction and drug abuse at the undergraduate level. Academic coursework, teaching seminar and clinical experiences were the basic methodology. Visits to established narcotic addiction, drug abuse and drug prevention centers were included. Dr. Gary Cohen of Tulane University's Department of Psychiatry supervised an extended period of training in the department. The career teacher has returned to Tuskegee Institute to develop the necessary groundwork for academic coursework and field placement experiences for 15 predominantly black social science students and community members in human services for narcotic addiction, drug abuse, and drug prevention.

DRUG ABUSE HUMAN SERVICES MANPOWER DEVELOPMENT

Ruffer Johnson, M.S.W.
Instructor
Department of Social Work
Tuskegee Institute – Third Floor
Thrasher Hall
Tuskegee, Alabama 36088
(205) 727-6823
T02 DA00215 1974-1976

This program is training, at the undergraduate level, 15 predominantly black social work and social science students and community members in human services for drug abusers. Counseling, group work, community relations, and vocational rehabilitation are included in the methodology. A human development approach is taken toward the career of the addict and some pharmacology background is involved. Emphasis is placed on the early phase of the distribution of abusive drugs in nonmetropolitan areas where anti-contagion services are presumed to be most effective.

The training program peaks in the senior year when students are required to take either a 100-hour or 200-hour minimum field experience assignment to provide service to drug abusers and individuals caught up in the early stages of drug contagion. Various types of agencies are involved in providing field placements. Also a drug abuse field center was established in which students demonstrate the anti-contagion approach through counseling, group work, interagency referrals, and the involvement of adults with drug abuse resource persons. A seminar is used to integrate coursework and field experience.

ARIZONA

COUNSELOR FOR THE DRUG ABUSER

Paul Leung, Ph.D.
Associate Professor
Rehabilitation Center
College of Education
University of Arizona
2nd and Vine
Tucson, Arizona 85721
(602) 884-1860
T01 DA00021 1971-1974

This program is designed to train professional rehabilitation counselors in a master of science degree program with special emphasis in working with clients who have drug abuse problems. It is concerned with developing skills in: (1) counseling, (2) vocational diagnosis and evaluation, and (3) community awareness and education to enable the counselor to organize, coordinate and utilize community resources in the rehabilitation process.

The training involves both intensive didactic and practical study of the problems associated with drug abuse and its treatment. All facets of drug dependent problems including the psychological, physiological, and legal aspects are covered. One-third of the program is devoted to practicum and internship experience in clinical agencies employing a variety of treatment modalities.

Evaluation of the training program uses psychological inventories to measure base characteristics of trainees and resultant changes. In addition there are supervisory evaluations, and trainees evaluate the adequacy of their training.

TRAINING PROGRAM FOR DRUG PREVENTION PARAPROFESSIONALS

George Iglesias, M.P.H.
Instructor
Department of Human Resources
Pima Community College
Tucson, Arizona 85709
(602) 884-6816
T41 DA00066 1972-1975

A program leading to the associate of arts degree in drug treatment and prevention was initiated on a pilot basis in 1972 by admitting 20 students to be trained as paraprofessionals in this field. These persons are to assist professionals who are working in local drug treatment, prevention, and rehabilitation agencies.

During the second and third years the following specialized courses were developed and offered to all social service majors who desired a subspecialty in drug abuse counseling: (1) drugs in American society—an exploration of the social context in which drugs are used, the physical and psychological effects of drugs, and a review of current drug programs and research; (2) evaluation and support of the drug abuser—a course designed to provide the student with information and skills necessary to evaluate clients; (3) political and legal aspects of drug use—an overview of the political and legal aspects of drug use and

abuse including historical perspectives on the drug situation, the influence of political pressures on the interpretation of the problem, the economics of drug abuse, civil liberties, court decisions and current thinking in the field; (4) treatment of the drug abuser—a comprehensive course leading to student skills in the treatment of the drug abuser. Content includes the various treatment modalities in use including therapeutic communities, day care programs, methadone maintenance and detoxification, and psychotherapy models.

CALIFORNIA

YOUTH INVOLVEMENT, ALIENATION, AND DRUG ABUSE

Warren Winkelstein, M.D.
Dean
School of Public Health
University of California
19 Warren Hall
Berkeley, California 94720
(415) 642-2523
T01 DA00015 1970-1976

This training grant adds a specialized training unit (four trainees the first year and six in each year thereafter) to the Post-Master's Community Mental Health Program of the Department of Social Welfare. Because trainees already have a Master's degree and a minimum of 3 years of field experience, upon completing the program they are prepared for roles in consultation, research, administration, program and policy planning, where emphasis is placed on those social factors which contribute to the alienation of youth and their destructive use of drugs. Field projects are concentrated in institutions and programs which serve a variety of ethnic and age groups within the youth culture.

Among the courses offered in the program are: The use and abuse of drugs, the dominant culture, and the counter-culture—a laboratory seminar in community mental health—and drugs and society. The last course mentioned explores the culture, politics, and economics of the drug mystique in a technological society. It traces the connections between the promotion of mind-altering drugs in the health industry and its acceptance by the youth culture. There is an emphasis on prevention of abuse at the level of the drug promoting system, rather than at the consumer level. The course includes consideration of alternatives to drugs and of potentially positive aspects of altered states of consciousness and their impact on scientific and professional orthodoxy. One 2-hour lecture and discussion is held each week and the course averages 15 students per semester.

UCSD DRUG ABUSE TRAINING PROGRAM

Lewis L. Judd, M.D.
Vice Chairman and Associate Professor
Department of Psychiatry
University of California, San Diego
La Jolla, California 92037
(714) 453-7500
T31 DA00007 1972-1974

This program offers an expanding curriculum at various levels of educational sophistication. Individual training programs are designed to meet the needs of four major groups: (1) medical students, (2) graduate physicians, (3) nurses and licensed vocational nurses, (4) nonmedical graduate professionals and paraprofessionals with a career-ladder potential for outstanding trainees. Trainees acquire expertise in such modalities as crisis intervention, methadone maintenance, aftercare, and therapeutic communities.

Course material is integrated into existing courses depending upon the discipline. The program utilizes resources available through the health sciences departments of the University of California, San Diego, Medical School. It offers practical training in clinical services and at Deer Park Residential Center.

The training time depends on the program selected, with a minimum of 4 and a maximum of 12 months. Students who participate in the residential program take part in all activities of the community.

TRAINING DRUG REHABILITATION COUNSELORS

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Suicide Prevention Center
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T01 DA00010 1973-1974

This program trains 12 to 15 former drug users as drug rehabilitation counselors. These counselors are

known as "linkers" because they serve to establish a tie between members of the drug subculture and the public. Most of the students selected for training are graduates of Narcotic Addict Rehabilitation Act Treatment Programs.

The training, given for 5 months, 40 hours a week, consists of development of communication skills, specific training in the Carkhuff method of evaluating interaction, procedures for organizing written and oral material for group presentation, and techniques for conducting group processes.

Evaluation procedures make use of subjective, objective, internal, and external criteria.

TRAINING IN THE PSYCHOLOGY OF DRUG ABUSE

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T01 DA00118 1973-1976

A 2-year training program in the psychology of drug abuse is provided for graduate students from all subdisciplines of psychology. The goals are to provide clinical psychologists with expertise in delivering care to drug abuse patients; to develop experimental psychologists who have sufficient clinical experience to carry out basic research relevant to drug abuse problems, and who can develop emergency patient care; and to provide a common language and background of experience in the field so that clinicians and experimentalists can communicate freely. An additional goal is to stimulate student interest and activity in treatment and research in the drug abuse field.

Trainees are chosen from among those students from all subdisciplines of psychology who have successfully completed the first-year program. An attempt is made to achieve a balance between those with a primary orientation to research and those with a primary orientation to clinical problems. Selection is carried out by the core committee on the basis of the student's performance in the first-year graduate program and on the basis of a demonstrated interest in drug abuse problems. Outstanding students are encouraged to apply. Students are asked to commit themselves to at least two years in the program, during which they can complete the required courses and field experience.

The first-year curriculum consists primarily of courses in drugs and behavior and the psychology of drug abuse. Limited field experience is gained in visits to drug treatment centers and to human and animal psychopharmacology laboratories. Among the courses offered is the psychology of drug abuse, which concentrates on the problem of drug abuse as approached by behavioral scientists. It moves from an intensive examination of the nature of addicts and the addiction process to a consideration of treatment and treatment evaluation. In addition to narcotic addiction, other substance abuse problems are discussed such as alcoholism, barbiturate addiction, amphetamine dependence and the use of LSD, marihuana and other "recreational drugs."

NIMH COMPREHENSIVE DRUG TRAINING CENTER AT UCLA

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Los Angeles, California 90024
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T15 DA00079 1972-1975

The UCLA Drug Abuse Training Center provides training programs for professionals and paraprofessionals in the field of dependency disorders. Workshops assist candidates in learning, relevant to the dynamic demands of the discipline, e.g., treatment, rehabilitation, evaluation, management, legal ethnic, socioeconomic, cultural, and community-university concerns. Representatives of varied groups such as military, medical, youth, etc., contribute to training models. Attention is paid to changing role requirements of those working in or conducting research in this field. The candidates learn to conceptualize systems effects of role interdependence, responsibility levels, career ladders offering vertical and horizontal mobility to professionals, paraprofessionals, and new careerists.

Located in Southern California, the center draws from diverse cultural and ethnic heritages, psychosocial and economic groups and incorporates the diversity of this locale into its training concepts. The center combines atmosphere, its vast library and laboratory resources, with academically supervised

independent study and practicums in the field. Representatives of varied disciplines experience alternative training models directed toward professional growth and self-development. The expert multidisciplinary staff guides candidates in developing training models applicable to their particular settings.

The following instructional modules have been developed: clinical, community organization, crisis intervention, task analysis, program development, and project management. To date, cumulative employment of those trained is 761.

NEW CAREERS IN COMMUNITY MENTAL HEALTH

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University of California
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T41 DA00134 1973-1976

This program provides treatment and rehabilitation training to six individuals selected from problem backgrounds, such as ex-addicts and ex-convicts. The program is administered by UCLA and the Community of Venice through the Venice Drug Coalition. Selection of the trainees is by an advisory committee appointed by the professional board of the Venice Drug Coalition. Training is carried out jointly by the staff of the university, staffs of local private agencies, and paraprofessionals with a contribution to make in the training of new careerists.

The academic section of the program is provided by UCLA, with primary emphasis on supervised practical experience in community agencies. The curriculum consists of 1 year's work divided into four quarters. This includes remedial work—individually arranged tutorial and classroom time for upgrading basic literacy, computational, and communicative skills; basic skills in community organization, training, and management; and inservice training. The training course leads to an Associate of Arts degree and employment is arranged for those wishing to further their education in mental health fields.

Field experience is offered in nine separate orientations, including street locations. Trainees are encouraged to participate in the multimodality agencies and treatment programs. Following the 1-year training program, trainees are guaranteed employment by the Neuro Psychiatric Institute.

Criteria for evaluation of the training program are the growth of the trainees themselves, questioning a sample of clients served by the trainees, and agency assessment.

SOCIAL WORK TRAINING PROJECT DRUG ADDICTION AND ABUSE

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University of California
School of Social Welfare
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T01 DA00046 1973-1976

The School of Social Welfare at the University of California at Los Angeles has developed a curriculum on the role of social work in prevention and treatment of narcotic addiction and drug abuse to alleviate manpower shortages in the field by preparing graduate social work students as career specialists; to introduce the drug curriculum into the general curriculum studied by all students in social work at UCLA; and to prepare the school's faculty to assume a leadership role in working with various community groups to develop programs to cope with drug and drug-related problems.

After the first year of general core curriculum in social work, second-year trainees participate in a three-quarter seminar for 2 hours each week dealing with basic knowledge of the drug field, methods of intervention and definition of the role of the social worker in contrast to the role of other professionals and paraprofessionals. Guest seminar lecturers represent a variety of areas. Students also gain experience by field placement in all types of treatment modalities, programs, and various aspects of prevention programs. Students select some aspect of social work practice related to the drug problem for the required master's thesis. Thirty units of work are devoted specifically to the drug field and six elective hours are selected from the regular social work courses.

TRAINING PARAPROFESSIONALS FOR DRUG ABUSE PROGRAMS

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(213) 226-5614
T41 DA00155 1973-1976

Recovered addicts and indigenous minority community workers (primarily Chicano) are trained in drug abuse services through three agencies. The 6-month training program is offered to 32 students each year.

The U.S.C. Division of Social and Community Psychiatry supplies education and experience relevant to psychological and interpersonal problems—intake interviewing, one-to-one counseling, group and family group processes, personality development. Each content area offered consists of no less than 8 hours per week.

The Narcotics Prevention Project provides onsite experience and instruction in rehabilitation and community issues—social rehabilitation and job placement, cultural aspects, legal, public, private community resources and hospital-based rehabilitation programs. The trainees spend two or more days per week in this activity.

Rancho Los Amigos Hospital provides experience and training in management of overdosing, detoxification, hospital-initiated rehabilitation, and relevant pharmacology and toxicology. This experience embraces both inhospital multi-modality approach and outpatient care with family and marital group therapy and crisis intervention. This exposure also includes observation of admitting to intensive care, general principles of human behavior, interviewing techniques and screening, and supervised participation in group therapy along with principles of brief therapy. The trainees spend an average of 2 days per week in this training activity.

The effectiveness of the training program is evaluated by the students during and following the training period; the trainee's performance is monitored throughout the period by the supervisors and by the supervisor of the employing agencies after placement. All graduates of the program are monitored by periodic followup of performance, employment stability, freedom from drug abuse, involvement in continued education, and promotion along career lines. An attempt was made to refine recruitment procedures during the project, by correlating training and career performance with personal characteristics and sociocultural background of the trainees.

ADOLESCENT DRUG ABUSE PREVENTION PROGRAM

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T15 DA00013 1972-1975

The Los Angeles Center for Group Psychotherapy trains "caretakers" from schools, mental health agencies, and from probation, law enforcement, and pastoral personnel. Training is focused on group techniques aimed at primary and secondary preventive approaches to adolescent drug abuse through didactic, observational, and experimental group materials under supervision. The center has a third training program available to persons in positions of administration and supervision, including school superintendents, principals, senior probation department supervisors, law enforcement personnel, etc.

The center began in 1967. One of its primary goals is the training of mental health professionals in group psychotherapy. Through NIDA funding it now provides training programs to personnel through a variety of community agents and agencies which are currently faced with the problems of adolescent drug abuse. The center has given courses designed specifically for the training of school counselors, social workers for the Department of Public Social Services, probation officers and narcotic agency personnel, a variety of mental health professionals, and for community agency personnel.

The course in primary prevention deals with normal behavior, the early recognition of dysfunctional behavior, and the prevention of such behavior. This course is geared for training school counselors, teachers, and workers in the Department of Public Social Services. The second course, on secondary prevention, is geared to meet the needs of secondary school counselors, probation officers, and mental health professionals in community agencies. This course is designed to increase trainees' competence in dealing with dysfunctional behavior in the adolescent. The two courses run concurrently and each is offered

two times a year. In that way 60 individuals receive training per year.

The new course for administrators averages over 4 hours per week for a total of 34 hours for 8 weeks. It is designed for senior administrators of schools, senior probation officers and supervisors, senior parole officers and supervisors, senior police departmental officers, the judiciary, and other community leaders. The range of instruction appears to be ideally suited to the needs of administrators/supervisors.

WESTLAND SUBSTANCE ABUSE TRAINING FOR PROFESSIONALS

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Project Director
Westland Health Services, Inc.
4350 11th Avenue
Los Angeles, California 90008
(213) 295-4111
T41 DA00164 1973-1976

This program offers short-term courses that upgrade the knowledge and skills of professionals working in the black community of Los Angeles, California.

Short-term courses are available to physicians, nurses, recovered addict counselors, community outreach workers, school and vocational counselors, social workers, clergymen, police, and parole and probation officers. The content includes exploration of signs and symptoms of drug abuse and dependence, the development of office approaches to treatment of abuse, studies of pharmacology, new approaches to prevention and treatment, and the determination of referral resources and procedures. Facilities used for the program are obtained by arrangement with the Los Angeles Unified School District.

Trainees are actively involved in the educational process rather than being passive recipients of didactic information. Project staff facilitate the trainees' understanding and application of content material through a variety of group dynamic techniques aimed at integrating course material and personal talents, attitudes, and roles. Work is done in dyads, triads and small groups to increase the personal participation of each trainee as well as to familiarize him with these techniques. The courses are seen as lecture/discussion experiences.

There are several workshops throughout the year which allowed course participants to continue learning about substance abuse and to explore their own views on this subject. Participants in the initial course for physicians and nurses have already requested a workshop to learn about the government's role in coping with substance abuse. Interest was expressed concerning trends in legislation as well as in directions of the National Institutes of Health. Westland staff has planned such a workshop. Such workshops are a catalyst to broader community understanding and problem solving.

TRAINING FOR DRUG TREATMENT WORKERS

Wilbur Kelley, M.P.A.
Coordinator, Training Program
West Contra Costa Community Health Care Corporation
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Richmond, California 94804
(415) 233-3994
T41 DA07016 1975-1978

This program is designed to serve the manpower and training needs of 12 East Bay (San Francisco Bay) drug programs and to provide career advancement through accredited training programs. One program has enrolled 95 persons the first year, allowing them to earn 27 academic credits toward an A.A. degree. Seventy-five are currently employed and 20 are newly hired. The 12 participating agencies are standardizing job descriptions and pay levels so that greater mobility is provided. Tutoring and counseling are made available to the trainees.

Merritt and Contra Costa Community Colleges are the cooperating academic institutions. They will award a certificate at the end of the first year of training for a Community Social Service Program. During the first year 60 percent of the trainee's time will be on-the-job training.

The second year's training will allow the trainee to complete the requirements for the A.A. degree in Community Social Services. Further career advancement will be provided through matriculation at San Francisco University and California State College at Hayward.

TRAINING OF REHABILITATION COUNSELORS IN DRUG ABUSE

Fred R. McFarlane, Ph.D.
Project Director, Counselor Education

Rehabilitation Counselor Program
San Diego State University
San Diego, California 92115
(714) 560-1363
T01 DA00174 1973-1978

This 3-year program is designed to train 55 vocational rehabilitation counselors at the master's level, with emphasis on drug abuse.

The program selects trainees with high aptitude and personal and scholastic qualifications and trains them in counseling processes and techniques. Recruitment is on a nationwide basis and minority group students are sought by advertisement. Trainees are given working knowledge of drug effects as well as information concerning the special requirements of the drug abuse client. Vocational rehabilitation for the ex-addict is seen as a critical aspect of his recovery.

Three, 3-unit drug-oriented courses are offered. A core curriculum of nine courses in rehabilitation counseling has been developed. Two days a week of field work with one semester devoted entirely to field experience in one of San Diego's drug treatment programs is required.

The training program is evaluated three times during the year, in December, March, and June. The project staff and the trainees meet for a 2-day seminar. During this seminar all facets of the program are critiqued and refined. Program evaluation is being completed on an ongoing basis for the duration of the project. Behavioral criteria are utilized in assessing the trainees' progress. Graduate followup will obtain details of level of functioning and amount of drug client involvement.

TRAINING ETHNIC YOUTH AS DRUG ABUSE COUNSELORS

Carl E. Drake, Jr., M.D.
Clinical Director
John Hale-Bayview Community Mental Health Services
1625 Carroll Street
San Francisco, California 94124
(415) 822-3352
T21 DA00012 1971-1974

This project trained youth of varied ethnic origins and social backgrounds in the field of drug abuse counseling. The objective is to find ways to teach persons with limited education basic social and psychological skills, training them as mental health workers and agents of social change who are not labeled as "establishment" types.

UNDERGRADUATE TRAINING FOR DRUG ABUSE COUNSELORS

Irving Klompus, M.D.
Principal Investigator
Haight-Ashbury Training and Education Projects
409 Clayton Street
San Francisco, California 94117
(415) 626-6763
T15 DA00141 1973-1975

Haight-Ashbury Drug Abuse Training Projects, under the mantle of the Youth Projects, Inc., is training health professionals from all regions for treatment positions in drug abuse. Training consists of orientation and lectures, followed by 10 weeks of supervised clinical field placement in drug abuse clinics in the San Francisco area.

Four training cycles of 12 weeks each, with each cycle carrying 15 trainees, are held per year. Trainees are medical students and physicians, who represent 80 percent of any single training cycle, and nurses, social workers, pharmacists, psychologists, students of same, and psychiatric aides with six months' experience constituting the other 20 percent. The trainees spend the first week of each cycle at the UCLA Drug Abuse Training Institute (a NIDA-funded training program) receiving instruction essentially of a didactic nature. During this week they reside in the UCLA Drug Training Institute quarters. The second week's activities include a general orientation of San Francisco, the Haight-Ashbury drug training project, and exposure to the agencies with which they may desire to do extended internships for the remaining 10 weeks. During this week of orientation in San Francisco, they move into the residence in which they will live together in a mild therapeutic community climate for the remaining time of their training. They then participate in their selected internships with ongoing supervisory sessions provided by the training staff and, in addition, participate in one of two ongoing group process experiences.

Topics covered in the training sessions include: pharmacology of drug abuse; clinical counseling; therapeutic approaches to drug dependency; medical aspects of drug dependency; human sexuality seminar; and a family therapy workshop, "Crisis in a Crowd."

NEUROCHEMICAL ASPECTS OF DRUG TOLERANCE AND DEPENDENCE

Leong E. Way, Ph.D.
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(415) 666-1951
T01 DA00006 1973-1977

This graduate level training program in drug abuse and dependence emphasizes the neurochemical aspects of these phenomena. The main thrust of the program is to train people to do research in the field of drug addiction and to prepare them for academic careers in this field. The training is centered in the Department of Pharmacology and Toxicology in the School of Medicine, University of California, San Francisco. Four senior faculty members, a junior faculty member, and two part-time supporting staff people make up the personnel involved.

The program provides training for two predoctoral and five postdoctoral trainees. In addition to the basic scientific aspects of tolerance and dependence, the trainees are afforded experience with social and psychological aspects of these problems through observational periods in ongoing community projects and institutions, which include the Haight-Ashbury Free Medical Clinic, the San Francisco General Hospital Drug Detoxification Clinic, the San Francisco Center for Special Problems, the San Francisco Coroner's Office, and the Hine Laboratories.

The period of training for the postdoctoral trainees is two years. The predoctoral students follow the general graduate curriculum of the department but work on thesis problems in the general area of the training program, with one of the four senior professors as an advisor. The length of their training is the usual 4 years of a Ph.D. in pharmacology.

INSTITUTE ON SUBSTANCE ABUSE STAFF TRAINING PROJECT

Sandra Exelby, M.P.H.
Project Director
San Joaquin County Office of Drug Abuse Coordination
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Stockton, California 95202
(209) 446-9751
T15 DA07019 1975-1978

The Institute on Substance Abuse Staff Training Program is sponsored by the San Joaquin County Office of Drug Abuse Coordination and the University of the Pacific. Full-time staff members employed within any alcoholism, methadone, detoxification, drug abuse prevention, treatment or rehabilitation program are eligible to participate for credit and certification. Part-time staff, volunteers, and interested persons within other agencies or the community may audit courses whenever space is available. The training cycle lasts from July 1 through June 30 and includes 19 courses and a maximum of 22 extension units through the University of the Pacific.

Certification in "Client Advocacy in Substance Abuse Prevention, Treatment, and Rehabilitation" requires completion of the following courses: personal skills assessment; case management; group facilitation; nonspecific modalities for client services; and community resources for client referral. Certification in "Substance Abuse Prevention, Treatment, and Rehabilitation Program Administration" requires completion of the following courses: community needs assessment and budget writing; program planning and evaluation; the function of fund raising as community support for programs; and proposal writing. To receive certification, the participant must also complete four subject offerings other than required courses.

The general objectives of the institute are to increase the level of staff training and education; to provide certification for counselors and program directors; to increase the number of client treatment modalities available in substance abuse-related programs; and to assess the effectiveness of the staff training process.

COLORADO

DRUG ABUSE AND ALCOHOLISM

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T31 DA00108 1973-1976

This is an undergraduate program which trains 20 counselors per year to work with addicts, alcoholics, and others with dependency disorders. Some trainees start with 2 years of college and receive a degree in mental health; the remainder are high school graduates who entered a program of study leading to the Applied Science Associate in Helping Services degree.

Methods include classroom teaching, community experience, and visits to other programs. A 200-hour internship in either drug or alcohol treatment facilities is included.

Metropolitan State College began as an evening and weekend college and grew into a viable program in the center of the ghetto area in Denver. There is a fair-sized black community, a substantial Chicago community, and some Indians living in this area, and many attend this college. The college has had an ongoing program training people to become mental health specialists.

A number of courses are available to students enrolled in the Metropolitan College Drug and Alcohol Program. The courses include: the pharmacology of drugs, drug internship, group dynamics, group facilitation, field experience in drugs and alcohol abuse, family therapy, dynamics of cross-cultural relations, counseling the drug addict, social work and the community, therapy and application of psychotherapy, community rehabilitation services, behavior modification, program administration, and advanced therapeutic techniques.

Some of the more unique aspects of this program include the following:

1. Nine hours Biology/Pharmacology directly related to counseling
2. Eleven hours Social Rehabilitation training related to counseling
3. Eighteen hours field experience in Drug/Alcohol
4. Six hours in specific Drug/Alcohol counseling
5. Two hours First Aid
6. An effective and operating model for field/classroom counselor training, including modalities

Some of the program's student interns have served with the Denver public schools, and the program has established a speaker's bureau to work with local community organizations and clubs.

CONNECTICUT

CONNECTICUT CLINICAL TRAINING CENTER

Donald Pet, M.D.
Director
Connecticut Alcohol and Drug Training Center
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T31 DA07020 1972-1975

This is an inservice training program for the Connecticut Alcohol and Drug Dependence Division and other workers handling drug problems. A full-time staff of professionals plan and conduct courses for professionals and paraprofessionals at the Undercliff Mental Health Center. A mobile team services various direct treatment programs. Modes of training include lectures, videotapes, clinical seminars, and demonstrations. The approach is multimodal with curriculum changes occurring as experience is gained.

Connecticut is advanced in organizing drug services. Professionals are required to undergo suitable training before they may provide treatment. Paraprofessionals will probably be certified on the State level to qualify as rehabilitation specialists. Specialized training is required of them also. To help paraprofessionals advance in their careers, a training sequence of 22 credits toward an A.A. program in Addiction Counseling has been developed.

TRAINING PROFESSIONALS FOR DRUG TREATMENT PROGRAMS

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T01 DA00151 1973-1975

Hall-Brooke Hospital, an established private psychiatric hospital, has established a 6-month course for six ex-addict counselors in order to provide these counselors with a sense of professionalism.

Each month there is a rotation designed to insure that each of the trainees has an experience on the drug unit of the hospital—one of six clinical units in the Hall-Brooke complex. Each trainee also has an assignment to at least two, and in some instances three, different units, thus giving him an opportunity to learn the different therapeutic styles and approaches of different members of the staff.

Upon introducing a trainee into the program, a close relationship to the unit chief is started and maintained. The unit chief acts as a sponsor and is available for discussion of any questions or problems that the trainee may have. One of the primary tasks of this assignment to the unit and to a sponsor is to develop a sense of professionalism which is a *sine qua non* requirement for anyone involved in a helping relationship. Special attention is paid to helping the trainee understand how to deal with his limitations.

Hall-Brooke emphasizes the use of groups; all trainees participate in workshops of groups which consist of 10 weekly small group meetings, two application group meetings, and one meeting devoted to a lecture, the primary task being to provide an opportunity to learn about interpersonal, intragroup and leadership problems in small groups.

Each trainee is also assigned to act as cotherapist in a joint family therapuetic session. Each patient at the hospital meets regularly with other members of his family and one or more cotherapists. This gives the trainee an opportunity to learn family therapy through active participation in family groups. After such therapy sessions he discusses his performance with the supervisory cotherapist (psychiatrist, psychologist, or social worker).

The trainees receive instruction in community resources by didactic lectures. In addition there are field trips, which provide opportunities to visit other facilities to learn how they operate. There is discussion of how specific needs are met by specific agencies.

DISTRICT OF COLUMBIA

DRUG ABUSE COUNSELING

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Rehabilitation Counselor Education
George Washington University
Department of Education
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Washington, D. C. 20052
(202) 676-6376
T01 DA00036 1972-1976

The graduate program established through this grant has prepared 21 students in the vocational rehabilitation curriculum for employment as professional drug counselors. Students are recruited, screened, and selected in accordance with George Washington University's standards for admission to the graduate school. They enter the Master of Education Degree Program at the University's Rehabilitation Counseling Center and receive the master's degree. In addition to the traditional rehabilitation counseling program, students enroll in three special courses relating to drug abuse and receive practical experience by working in one of several drug treatment centers.

FIDES HOUSE DRUG ABUSE EDUCATION PROGRAM

Donald Freeman
Program Director
Fides House Drug Abuse Education Program
1542 Eighth Street
Washington, D. C. 20001
(202) 265-4718
T41 DA00224 1974-1976

This project provides training for people who are involved in direct services in the Shaw community area. Weekly seminars dealing with the problems of drug abuse are given to staff workers in settlement houses, youth programs, and in other community agencies which are working in the immediate geographic area of Fides House. The goal of the program is to provide community agencies with training for their personnel in drug abuse and drug abuse prevention. For this purpose, seminars are given 1 to 2 hours weekly for a total of 10 to 20 weeks. Topics include the pharmacology of drug abuse, the sociology of drug abuse, history of drug abuse, economic aspects, psychological factors, medical aspects, treatment approaches, and prevention.

In addition to the community seminars, a community-based library on drug abuse is being

developed. An adult auxiliary component is being proposed which is designed to become the community catalyst of the permanent drug abuse prevention team in the Shaw area.

NATIONAL DRUG ABUSE PERSONNEL SELECTION DATA SYSTEM

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National Association of State Drug Abuse Program Coordinators
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T41 D A07001

The National Association of State Drug Abuse Program Coordinators (NASDAPC) received a grant to develop, operate, and maintain a National Drug Abuse Personnel Selection and Data System. This computerized system will be capable of servicing 18,000 employers and 100,000 applicants per year and of providing new or previously unobtainable data on the drug abuse industry, hiring practices, and other facets of the drug abuse complex. This system will be a tool for selecting consultants for technical assistance, for conducting research, and for program evaluation throughout the country.

Primarily, at least for the first year, this is a job placement system. As such, the system will not only facilitate the placement of qualified employees where such assistance is now vitally needed and largely not being obtained, but it will also open up new opportunities for service throughout the country.

The Individual Data Record was developed for recording individuals' job skills and experiences. These are then assessed and matched with existing job vacancies. NASDAPC has also assisted State training officers in developing their training needs assessment procedures.

NATIONAL INSTITUTE FOR DRUG PROGRAMS

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T41 DA00308 1975-1978

The Career Development Center has been mandated to perform several functions which will assist in the academic credentialing of drug abuse personnel. These functions are:

1. Modularizing curriculums for drug abuse personnel leading to the A.A. degree
2. Development of competency-based assessment procedures for the development of academically accredited curriculums and courses for drug abuse personnel
3. Systematic recruitment, counseling, and monitoring of drug abuse workers enrolled in external degree programs
4. Expansion and coordination of an external degree network of colleges and universities to serve the academic interests and needs of drug abuse personnel
5. Establishment of an advisory board to CDC composed of a "panel" of experienced nondegree professional drug abuse workers
6. Publications activities
7. Conferences

Most traditional colleges have simply not been responsive to the drug abuse workers—in admission policies, nature of the curriculum, instructional design, and delivery of knowledge and information. The Career Development Center is mandated to elicit the support of those institutions which are and can be responsive to the drug abuse workers' needs in terms of academic credentialing. It is still the case that "a worker with academic credentials and no experience has better career prospects than a person with experience and no academic credentials." The best prospects, it seems to the center, are workers with experience who have academic credentials. The center is committed to assisting drug abuse personnel acquire those academic credentials which will permit them to continue to provide creative services in the future.

FLORIDA

COUNSELOR FOR DEPENDENCY DISORDERS—A.A. LEVEL

Shirley P. Hagen, M.A.
Director
Counselor for Dependency Disorders
Division of Student Development
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South Campus
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(305) 274-1301
T41 DA/AA07011 1975-1978

This program leads to an A.A. degree transferable to a B.A. program and provides job skills for counseling at a preprofessional level. Emphasis is placed on counseling and education for the prevention and treatment of dependency disorders. Instructional methods include experiential learning, role playing, group interactions, exercises for self-awareness and supervised field experiences as well as traditional methods and counseling theory with particular emphasis on techniques in current psychotherapies. Students develop skills in interpersonal relationships, clear communication, assisting in conflict resolution, problem solving and counseling interventions as well as acquiring a knowledge of the dynamics of inter- and intrapersonal behavior.

The individuals being served are high school graduates or the equivalent selected for counseling interest and aptitude, staff and/or clients from therapeutic facilities and other alcohol/drug-related programs, other helping change agents in the community for whom job employment requires and/or is dependent upon a knowledge of counseling skills. Different age groups are represented and special efforts are directed at recruiting minority group members.

Training consists of an existing college curriculum. For the first semester it includes peer counseling, social services and referrals as directly related drug material, and narcotics and dangerous substances with a variety of electives for the second semester. The 2-year program is flexible enough to allow full-time, accelerated (to include summer sessions), and part-time enrollment. The required general education courses, which assure that students completing the program will be accepted as transfer students at senior institutions, are identified. It should be noted that the total series has been integrated with the B.A. program at Biscayne and offers a well-planned, orderly continuity which encourages students to pursue both B.A. and M.A. degrees.

MASTER OF SCIENCE IN HUMAN RESOURCES

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(305) 625-1561
T01 DA00291 1975-1978

The M.S. in Human Resources focuses on dependency disorders. This degree is part of a career training ladder in conjunction with Miami Dade Community College (A.A. degree) and Florida Memorial College (B.A. degree). The package represents a full spectrum of academic preparation in social services with emphasis on drug abuse counseling and specialization in the theory, remediation, and prevention of dependency disorders.

This project trains professionals to administer drug programs, develop State and/or local programmatic stratagem, and to work in other policy or planning areas. The program is responsive to persons currently working in the area, realizing that many are doing pioneering work for which no academic certification has heretofore been available.

Students for the program range from recent college graduates with interest in the area to workers in the entire spectrum of drug abuse programming. The traditional educational program is supplemented by independent study, life learning experiences, and short intensive training experiences conducted by leading experts in the field. Students with a bachelor's degree are eligible to apply, and relevant experience is considered when reviewing the application.

UNDERGRADUATE TRAINING FOR DRUG ABUSE COUNSELORS

Dutchie Johnson, M.Ed.
Director
Drug Abuse Counselor's Training Program
Florida Memorial College
15800 N.W. 42nd Avenue
Miami, Florida 33054
(305) 625-4141, Ext. 62
T41 DA00149 1973-1976

This program trains undergraduate students as drug abuse and narcotic addiction counselors and educators at Florida Memorial College, Miami. Students are senior urban services majors at the college who have demonstrated their ability and interest as juniors in the Urban Services Program.

The training is a component of an existing curriculum which leads to a B.S. in Urban Services. The 12-hour sequence in drug abuse and narcotic addiction training is included in the hours needed for completion of the requirements for the B.S. The two courses offered are: Seminar in drug abuse and narcotic addiction (6 hours, 2 semesters); and supervised field work in drug abuse counseling and education (6 hours, 2 semesters).

Supervised field work is conducted in settings in which drug abuse and/or narcotic addiction is treated. Field work students are supervised by trained personnel in these agencies and attend biweekly seminars at Florida Memorial College. Under this grant stipends are provided for students for support of supervised field experience.

GEORGIA

DRUG RESEARCH AND TREATMENT MANAGEMENT TRAINEESHIP

David M. Peterson, Ph.D.
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Atlanta, Georgia 30303
(404) 658-2690
T01 DA00110 1973-1976

Training in research and program evaluation, with emphasis on urban problems, in the fields of narcotic addiction and drug abuse is provided in this 2-year master's program. Approximately 15 graduates from accredited colleges are receiving coursework in sociological theory, research methodology, mental health, sociology of drug abuse, psychology of drug abuse, and pharmacology of drugs and narcotics.

The program requires a minimum of 45 quarter hours for completion. In addition to 30 hours of class work, students are required to complete 10 elective hours. Offerings include library research, electives in sociology (such as complex organizations and seminars on the family, deviance and social control, urban complex, human ecology, and personality and social systems), and computer programming.

Practical experience is gained at the Georgia Narcotics Treatment Program where the trainees spend time in the methadone clinic, a therapeutic community, and in special counseling and self-help groups. As a result of this work experience, students are encouraged to write a thesis. The ability of students to gain employment related to this training and the assessments of students by their employers are basic criteria in program evaluation. In addition, program graduates are requested to assess the relevance of their training after 1 year of employment.

Among this program's major product outcomes are the development of seminars on sociology of drugs, social psychology of drugs, and pharmacology of drugs.

UNDERGRADUATE TRAINING FOR DRUG ABUSE COUNSELORS

Gwendolyn Roquemore, M.A.
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Morehouse College
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Atlanta, Georgia 30314
(404) 681-2800, Ext. 281
T02 DA00002 1973-1976

Morehouse College is training undergraduate students as drug abuse and narcotic addiction counselors and educators. The training program is a component of an existing curriculum which leads to a Certificate in Community Psychology. Trainees who complete the program have met the course requirements for the B.A. or B.S. in Psychology, have taken 18 additional hours in the community psychology sequence, and have completed the 15-hour sequence in drug abuse and narcotic addiction training.

Course content in this sequence includes two semesters of a proseminar in drug abuse taught by consultants (6 hours); 2 semesters of supervised fieldwork in drug abuse counseling and education for 6 hours each week in four agencies as well as several hours of conferences (6 hours); and 1 semester of "interventive methods," which focuses primarily on counseling drug abusers (3 hours). To be admitted in the drug sequence trainees must meet the pre-

requisite of admission to the school's clinical psychology program.

IDAHO

SOUTHEASTERN IDAHO DRUG EDUCATION PROGRAM

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Substance Abuse Division
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(208) 233-6170

T31-DA00034 1973-1976

Representatives of an NIMH-funded Community Mental Health Center (CMHC), the State university, a private hospital, a street people's crisis center, and an assortment of other individuals from varied backgrounds worked together to plan a program which integrates classroom training in the drug field with outdoor experiences in interpersonal relationship techniques and alternatives to drug use. This program supplements the role of the CMHC, which coordinates the various groups in planning and executing the program. The trainees include professionals and nonprofessionals, drug users and nondrug users, adults and adolescents, and persons from the whole spectrum of cultural and racial groups in the area.

The program consists of two parts: the academic component and the outdoor experiences component. The academic component includes didactic presentations and seminar discussions on various aspects of the drug problem. Both the general course and an advanced workshop emphasize the social and psychological aspects of drug abuse. The sessions are conducted by pharmacologists, mental health professionals, sociologists, and drug users.

The outdoor experiences component was planned to utilize the natural resources of Idaho. This phase emphasizes training in interpersonal relationship techniques of informal discussions and experiences. Specific goals for adult participants are to acquaint the trainees with techniques and values of outdoor activities which they can use as training, prevention, and therapy modalities for active or potential drug abusers and their peers. The goal for teenage and young adult participants is to develop a frame-work upon which attitudes, habits, and lifestyles can be shifted from favoring drug abuse to favoring nonabuse of drugs.

The following instructional units have been developed:

1. Basic concepts of pharmacology—includes discussion of drugs such as the narcotics, barbiturates, amphetamines, psychedelics, alcohol.
2. Historical perspectives of drug use.
3. The law enforcement aspect of drug use.
4. The sociological and psychological implications of drug use.
5. Overdose and crisis intervention.
6. Alternatives to the drug abuse situation.

An inservice training for health professionals model is to be developed for implementation.

The adult drug education class is the main vehicle by which the community is made aware of drug abuse information. This program is advertised by news releases to the local and regional media.

ILLINOIS

INSERVICE TRAINING FOR DRUG ABUSE COUNSELORS

Thomas C. Eversley, R.N.
Director
Bethany Drug Awareness Program
341 S. St. Louis Avenue
Chicago, Illinois 60624
(312) 265-7781

T15 DA00220 1974-1977

The purpose of the Bethany Drug Awareness Program (BDAP) is to sharpen the skills of the counselors presently on staff and to provide them an opportunity to expand their body of knowledge in the area of psychology. Alternative counseling techniques applicable to different situations and clients had been lacking before the inservice training.

There are 19 counselors in the program, 17 of whom are ex-addicts, and 16 who are already employed as the result of supplementary funding. All counselors but one are black or Puerto Rican and have received previous training in the Chicago area therapeutic communities. The majority are high school dropouts and none has a college degree.

Bethany serves a predominantly black, inner city community plagued by the usual ghetto problems. It is managed by a two-hospital coalition, Bethany Brethren and Garfield Park. Both are nonprofit institutions controlled by boards of trustees which are composed predominantly of area residents and consumers. They provide primary care at the central unit as well as at three outreach centers.

The first year of operation under NIDA funding, BDAP treated 429 addicts with client load varying between 190 and 210. Weekly urine surveillance showed 85 percent of patients remained drug free while on the program. Both drug-free and maintenance treatment are available. It is a comprehensive, multiple-funded system providing medical, psychological, economic, and educational aid to patients.

IOWA

TRAINING DRUG ABUSE COUNSELING SPECIALISTS

A. B. Hood, Ed.D.
Chairman, Division of Counselor Education
College of Education
University of Iowa
W114 East Hall
Iowa City, Iowa 52242
(319) 353-4925
T01 DA00135 1973-1978

This two-year program which leads to a master's degree encompasses 39 to 42 semester hours in the Division of Counselor Education at the University of Iowa. The students are trained as school or college counselors, rehabilitation counselors, and workers in community agencies.

Academic content includes 19 hours of drug counseling and 20 hours of counseling education. Among the courses offered is the drug culture, which explores some psychological and anthropological aspects of the drug culture. The course emphasizes (1) attitudes, values, language, artifacts and myths of the drug culture, (2) specific information on "street" drugs, (3) consideration of personality correlates of drug use and abuse. Some of the topical courses are: history of drug use; America as a drug culture; street psychopharmacology; different drug use; alternative and treatment; and sensuality, sexuality, and altered states of consciousness.

"Drugs and the Counselor" focuses on the psychological aspects of drug use, misuse and abuse. There is a consideration of the relationship of personality organization to drug patterns and an emphasis on the development and evaluation of different treatment models. Peripheral areas considered are: school-community drug policies, ethical and legal issues, counselor as a consultant, and alternatives to abuse.

"Psychiatry and Drug Abuse" is designed for students in their second year of the drug counseling program. Topics covered are: sedative drugs, their use, abuse, and psychiatric complications; alcoholism; stimulants, their use and abuse; marihuana-pharmacology and psychiatric complications; hallucinogens and opiates; affective illness-complications with alcohol and other drugs of abuse; schizophrenia and drug abuse; organic brain syndromes and drug abuse; personality disorders related to drug abuse; hysterical-hypochondriacal and other neurotic illnesses associated with drug abuse.

KENTUCKY

SOCIAL RESEARCH TRAINING IN DRUG ABUSE

Harwin L. Voss, Ph.D.
Chairman
Department of Sociology
University of Kentucky
Lexington, Kentucky 40506
(606) 258-4495
T01 DA00011 1970-1975

This program provides training at the doctorate level in sociology, special attention being given to the field of deviant (drug abuse) behavior, including extensive, supervised research experience in the area of drug abuse. Only candidates with an undergraduate degree in sociology or those holding a master's degree in sociology are accepted. This program in deviant behavior, which includes work in drug abuse, broadens the students' knowledge and experience and makes the study of drug abuse more attractive, because the more general training of the program provides greater scholastic opportunities and more options in professional careers.

One of the most distinctive features of the program is its supervised research experience in drug

abuse; students work full time during the summer at the NIDA Clinical Research Center (CRC). Program success is evaluated by determining whether the students pursue careers in drug abuse after their training is completed.

Between four and eight students have been supported each year by this grant. Among the students who have finished the program, one graduate is working at the CRC and another is working for the State of Kentucky, Department of Child Welfare, as a research analyst. Several articles on drug abuse were published in professional journals by people affiliated with the project.

LOUISIANA

TRAINING PROGRAM FOR THE CONTROL OF DRUG ABUSE

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(504) 382-4101
T01 DA00020 1973-1976

Responding to the critical need for trained manpower to deal with the serious consequences of drug abuse, the Southern University in New Orleans (SUNO) has developed a training program whose central objective is to provide training for career oriented students who have had many life experiences similar to those of addicts and, being aware of the problem, can communicate with them. Those trained will serve as a cadre to train service personnel elsewhere in the management of dependency, or to become practitioners or managers of drug-related agencies. The primary facility is a predominantly black commuter-student university serving the Greater New Orleans area.

The students represent a broad spectrum of interests and vocations: undergraduates, graduates, community workers some already active in volunteer work and others gainfully employed in clinics. Graduates, many of whom have found employment, come from the fields of nursing, religion, counseling, criminal justice, paramedicine, and clinic management. About 10 percent of the university population are currently minoring in drug abuse control and the program graduates about 15-20 trainees each academic year. The program offers five senior stipends and tuition, fifteen summer internships and tuition, and trainee travel allowance for 10 students.

The participants are exposed to medicine, psychology, social work, sociology, law, criminal justice and are informed of potential as well as available community resources. Field projects, internships, surveys, rehabilitation centers, and clinics are used in practical training. Theoretical training is conducted through lectures, group discussions, interdisciplinary panels and student-faculty seminars. The program is divided into two key training areas: (1) a general undergraduate-minor degree or certificate program for those already employed and/or who already have a baccalaureate degree; and (2) a trainee program for selected students who demonstrate a career commitment. The program provides a structured career ladder eventuating in employment, which is supported by a job data bank and employment referral service. Other supportive services include a drug advisory and referral service, a drug information clearinghouse library, workshop, and a student outreach center.

Courses offered, which are open to undergraduates, paraprofessionals, and community people, include: alcoholism and polydrug use/abuse; clinical aspects of the addictions; criminal justice and the civil rights of addicts; a drug abuse internship; workshop on clients' legal rights; the postaddiction career: rehabilitation and re-entry into society; program development and administration; and research methods in drug use/abuse behavior. In addition the program offers a field training practicum to undergraduate and graduate students, paraprofessionals and professionals, and a course entitled: the teacher and drug education for inservice and student teachers.

TRAINING IN DRUG PROGRAM ADMINISTRATION

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T01 DA00115 1973-1977

Graduate and postdoctoral training in the administration of drug programs are provided in this proj

which combines academic studies and field experience for trainees who have a bachelor's degree in a health-related field. The program offers a 12-month postdoctoral fellowship in the study of drug addiction, the major purposes of which are: (1) increasing the number and improving the quality of professionals available to work within the area of narcotic addiction and drug abuse; and (2) specifically preparing professionals in the behavioral sciences to administer drug abuse programs. Emphasis is placed on imparting basic knowledge in drug abuse and administrative principles, on observing and participating in well-established treatment programs, and on preparing students to work in administering and directing a drug abuse program in an effective and capable way.

The 1-year program covers three areas: basic knowledge in narcotic addiction, drug abuse, and program administration; a 32-week clerkship in treatment programs and modalities; and completion of a publishable paper in the field of narcotic addiction or drug abuse. Instruction is given through seminars primarily and focuses on the physiology and pharmacology of drug addiction; the social, medical, and psychiatric implications of drug abuse; principles of administration and epidemiology; statistics; and computer science. Fieldwork is offered at the Narcotic Addict Rehabilitation Act Program Drug Rehabilitation Clinic, Clinical Research Center, student health infirmary, Lousiana Narcotics Rehabilitation Commission, and other legal, Government, and educational facilities.

The effectiveness of the project is determined by the evaluation of trainee tests following each core aspect of the program, the fellowship thesis, and reports of trainee progress following completion of the program.

MARYLAND

TRAINING MENTAL HEALTH ASSOCIATES AS DRUG COUNSELORS

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Essex Community College
Baltimore, Maryland 21237
(301) 682-6000, Ext. 382

T41 DA00206 1973-1977

In this program mental health associate students are trained as drug abuse counselors to deal with addiction problems in the community mental health setting. Students receive special academic training, knowledge and experience in (1) behavior manipulation technology with the emphasis on environmental contingency influences; (2) group and individual counselling techniques; and (3) basic information delivery skills.

The training model used is sociopsychologically oriented rather than the traditional psychodynamically oriented model. Instead of concentrating on traditional therapy with emphasis on the verbal behavior of the client, the program emphasizes the total environmental contingency management approach.

The program is part of a series of options being developed within the framework of the existing Mental Health Associate Program at Essex. While the basic program produces graduates who can be classified as generalistics, the college has become increasingly aware of the need for community-based specialists in such areas as drug abuse, alcohol abuse, vocational rehabilitation, and the aging. All of the options are in addition to the generalized mental health program which all students must complete.

Students take the first year program as provided for the mental health worker program, spend the intervening summer in a practicum assignment, and take specialized courses for the drug abuse option in the second year. Financial support is available for some of the trainees. Special effort is made to recruit former drug abusers and persons who have been or are presently employed in local community agencies dealing with addict populations.

The school is situated in a health and education complex which already contains a hospital and the county health department; a public health center will be added in several years. This physical arrangement enhances cooperative endeavors and is an asset to the training of the allied health students at the school. Close working arrangements exist within the director of the Division of Drug Abuse of the county health department, and there is adequate provision for appropriate practicum affiliations.

MULTI-STRATEGY TRAINING PROGRAM IN DRUG ADDICTION

John Wilson
Assistant to Director
Department of Continuing Education
School of Social Work

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Baltimore, Maryland 21201
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T01 DA00043 1972-1975

The University of Maryland School of Social Work and Community Planning conducts a graduate traineeship program for students in social work. At present students may specialize in clinical social work (70 percent), social strategy/social planning (25 percent), or social administration (5 percent); a degree in community planning is being created. The multi-strategy program seeks to provide two-semester internships for students in social strategy and clinical treatment. A continuing education program for employed master's degree social workers and other service agents in drug addiction programs provides meaningful instruction in areas of need.

A group of social strategy students, supervised by a faculty field instructor, works with citizens' advisory councils in association with the Maryland Drug Abuse Authority (MDAA). The objectives are to (1) develop regional advisory councils permitting community members to assess needs and priorities, (2) facilitate the work of the regional office, (3) provide training and career opportunities, (4) involve citizens and consumers in planning and evaluation, and (5) identify other problem areas appropriate for student participation.

Another unit consisting of black graduate students and a black faculty field instructor is located in the Neighborhood Adolescent and Young Adult Drug Program (Sinai-Drind Comprehensive Pediatric Center, Model Cities Program). This program serves black ghetto youth, ages 13 to 21. A training program of the school's Department of Continuing Education has been established to provide staff development for personnel working at various levels in drug abuse programs by increasing their knowledge of drugs, identifying personality problems in drug abusers, improving communications skills, and improving the family situations of drug abusers. Three 30-hour workshops are held each year.

The school was founded 10 years ago, is located in the Baltimore inner city, and has a special commitment to the problems of minority groups. It has a Field Instruction Department under the direction of an assistant dean with four full-time faculty members. Major community institutions, along with the school, explore ways in which a unit of students may generate innovative service delivery programs. The Regional Planning Council, the Baltimore City Department of Health, the City Council of Baltimore, and the Baltimore City Planning Commission have sought field placements of social strategy interns in their agencies.

MASSACHUSETTS

DRUG ABUSE INTERDISCIPLINARY TRAINING PROGRAM

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Tufts University
Department of Mental Health
Boston State Hospital
Boston, Massachusetts 02124
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T01 DA00142 1973-1976

This is an interdisciplinary training program in drug abuse and community mental health for professionals and paraprofessionals. Trainees are a mix of psychiatric residents, advanced psychology Ph.D. candidates, pre-master's social work students, occupational therapists, pastoral counselors and ex-addicts. A formal 2-year program of seminars, supervision, and clinical experience in both drug abuse and community psychiatry is included. Stipends are also provided for postdoctoral fellows and advanced psychiatric residents for special training in drug abuse and psychopharmacology research. Time spent with various outside clinical programs connected with Boston State Hospital is part of the training program. Among the program's innovative efforts are recruiting ex-addict trainees into a B.A. program at the University of Massachusetts that provides course credit for their work at the hospital.

Included in the course offered in the program are: basic family processes, issues in psychopharmacology and drug addiction, social organization, issues in psychopathology, an integrative seminar, a guest lecture series, and a seminar exploring trainees' feelings and attitudes. In general, the courses are limited to students enrolled in the training program; there is an average of 14 students in each class.

SIMMONS DRUG TRAINING PROGRAM

Frances S. Lewis, M.S.
Professor

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T01 DA00053 1972-1975

Simmons College School of Social Work receives NIDA funds to add drug abuse and narcotic addiction training, through continuing education and curriculum enrichment to its programs for those who hold master's and post-master's degrees, as well as for paraprofessionals and others who are interested primarily in the training itself. The continuing education component is designed to develop social work leadership personnel for planning, consultation, and administration. Teaching models and revised curriculums are designed to train professionals with ongoing evaluation carried out by a part-time director of evaluation.

Trainees are in five categories: (1) master's program, social work drug specialists; (2) master's program students, nondrug specialists; (3) continuing education, post-master's social workers; (4) continuing education, post-master's students; and (5) agency supervisors, post-master's social workers. The Simmons College School of Social Work is the major site of training with many local agencies providing the field training sites.

Currently there are over 200 students in the master's program and recent recruitment efforts yielded 50 percent black and Puerto Rican applicants out of a class of 80. Ten to 15 percent of the student body are men. The B.A. training program is a 10-week program of intensive training for students with less than an M.S.W. degree. This program has trained over 150 workers for drug addiction units in the more traditional hospital settings. Intensive field experience were negotiated with three major drug agencies to develop a coordinated program for training: (1) ACID, which is a suburban counseling center program for youth, (2) Roxbury Court Clinic, which provides diagnostic evaluation treatment and referral services for court cases, and (3) the V.A. Hygiene Clinic Hospital Collaborative Drug Abuse Treatment Program, which concentrates on the veteran population.

Courses include: consultation and collaboration, clinical problems in troubled adolescents and young adults, exploring helping methods, effective use of the community, seminar in social work research, major issues in drug abuse, social group work in the treatment of drug abuse, and understanding the client.

INSERVICE INTERDISCIPLINARY TRAINING IN DRUG ABUSE

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Adolescent Counseling in Development, Inc.
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T41 DA00237 1974-1975

This training program has been developed in two primary areas in order to promote better treatment and rehabilitation methods for the drug dependence staff. The major goal is to enhance the quality of treatment to the drug dependent client by providing inservice training and staff development. The program is geared to the training of volunteers, as well as staff, in adolescent counseling and development in order to sustain the work at primary and secondary levels of prevention.

Trainees are taken from staff of ACID, youth and adult volunteers, and interagency staff from select disciplines in the tri-city areas of Everett, Malden, and Medford. ACID is a community based, nonprofit treatment center serving adolescents and young adult drug abusers. Since its inception, its goal has been to offer a comprehensive, multifaceted approach to help young people utilize their resources positively in the process of becoming drug free. Its primary focus has always included residential, day-care and outpatient services, and crisis intervention. While ACID was originally a crisis intervention center, it has branched out and is utilizing a number of different approaches to treatment and rehabilitation.

The program works with community agencies servicing the drug abusers in the tri-city area. This cooperative effort started through joint discussions about the needs of various staffs and the training (including learning experiences which utilize teaching mechanisms and case presentations) that would be offered. One of the integral parts of the design is the exchange of staff among the various agencies. A number of modules for the volunteers are being run in cooperation with the friends of ACID. These programs are open to the public and give people an orientation to the drug abuse scene and to ACID and serve as a means of identifying volunteers and introducing them to the range of treatment alternatives available.

CLERGY TRAINING IN DRUG ABUSE

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Clergy Training Program
McLean Hospital
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Belmont, Massachusetts 02178
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T01 DA00171 1973-1976

This program trains ministerial students in the fields of drug abuse and alcoholism through their pastoral roles in churches and community organizations. Eighty students are trained each year. Trainees are graduate-level ministerial students from the eight participating seminaries that comprise the Boston Theological Institute. The majority of students go into parish ministries, although some go into specialized ministries.

The supervised field-education model is employed in which students work in a drug treatment center and related community care programs for 1½ days a week over an 8-month period. The model stresses learning to use the positive aspects of the ministerial role in both short-term and long-term pastoral relationships with drug abusers. About 4 hours a week of the 1½ days are spent in patient care, 4 hours in supervisory and staff meetings, and about the same time in preparation of reports and travel.

During the first semester there is an orientation phase for 1 month which includes placement in and familiarization with the agency. The next month pastoral involvement with the clients begins. For the next 2 months short-term limited pastoral relationships continue, after which clients are chosen for a more intensive pastoral relationship. Throughout the second semester the short-term, time-limited pastoral relationships continued. Thereafter selection is made of a maximum of three people to work with in time-extended pastoral relationships (including patients, family, and community) throughout the remainder of the year. In addition to the one-to-one pastoral relationship with which this training period is primarily concerned, training is also given the student in how to mobilize the parish and community resources.

The major training facilities for field education are McLean Hospital, the Adolescent Counseling in Development (ACID) program, Malden, Massachusetts, and related facilities for both institutions. In addition, the Multi-Service Centre in Watertown is utilized for some of the field training. A total of 11 professional administrative people are involved full- or part-time in these projects; six of these have already worked together in projects at the Washingtonian Hospital. Students are placed in one or two training situations, either those centered at McLean or those coming out of Malden at ACID, and both groups meet together monthly for project seminars to integrate their diverse experiences. In addition, they participate in 3 weekend conferences during the training year.

In addition to the practicum outlined above, the seminary students engage in the academic course in drug abuse at the Boston University School of Theology. The course consists of 3-hour sessions once a week for 30 to 32 weeks. The course is open on an interdisciplinary basis to students from other professional schools within Boston University. Ten students a year are placed in the field agencies and a total of 25 students are enrolled in the interdisciplinary academic course.

The second phase of the project features short-term workshops in drug abuse for clergy in the Boston area. The participants (about 40 per year) are practicing clergymen involved in parish and other ministries who desire specific training in drug abuse. Some of these program students are drawn from the same pool as the trainees in the field education program. The workshops are offered twice a year and consist of a half day per week for 8 weeks.

The third phase of this program involves summer training for seminary students who cannot spend the full academic year at McLean. A total of five students are trained in this phase.

Both seminary students and clergy are offered periodic consultation with the project training staff after they have completed their formal training period. Such consultations are available informally by request and during an annual day-long conference for former program participants. Ongoing evaluation is a part of the project, and students in the program field receive continuing evaluation through regular supervised conferences as well as formal evaluations at the end of the first and second semester. The students and the staff develop an evaluation of the project as a whole at the end of the year. Goals of the training project are: (1) to become knowledgeable in the area of psychopharmacology of the commonly abused drugs and to develop an appreciation of the role of treatment of drugs in society; (2) to develop an understanding of the psychodynamics of drug abuse; (3) to develop an understanding of the various treatment modalities; (4) to develop knowledge of the existing resources in the field of drug abuse; and (5) to become knowledgeable in drug abuse

preventive education. The clinical content is aimed at enhancing the student's ability to establish and maximize relationships with drug abusers; to develop skills in interviewing and the use of teamwork; to increase collaborative skills; to develop an appreciation of the role and resources of and responsibilities to each individual; and to develop insight into the ministerial role.

TREATMENT OF DRUG ADDICTION

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T15 DA00016 1971-1974

This training program's two major objectives are: (1) to establish a full-time postgraduate clinical, preventive and community oriented program to train social workers, school psychologists and school guidance counselors, nurses, and rehabilitation counselors in the field of drug addiction and (2) to establish a part-time training program in the field of addiction for concerned citizens and mental health workers who desire knowledge of drug abuse.

Graduates of the full-time program are prepared to treat the drug abuser; to develop rehabilitation, prevention, and education programs with schools and communities; and to train other professionals and lay persons to understand and work with the problems of drug abuse.

Twelve professionals are trained each year in the 10-month full-time program. They participate, under supervision of therapists, in the drug addiction rehabilitation programs at Washingtonian Hospital and Boston State Hospital where the major treatment modality is encounter groups. They are also given an opportunity for field placements in other agencies, if they choose, to specialize in the educational, preventive, or community aspects of drug addiction rather than in treatment. The training involves research or a special project in the trainee's area of specialization, field visits to other treatment centers, seminars, lectures, teaching conferences, and assignment readings. The citizens and mental health workers in the part-time training program become acquainted with the problems of drug abuse and increase their competency to cope more effectively with the social, legal, and psychological effects and meanings of drug abuse.

The part-time program trains approximately 80 persons in six or more groups each year, one group of 8-10 attending 1 day a week for 8 months, two or more groups of 12-15 attending ½-day per week for 16 weeks, and three or more groups of 12-15 attending 2 or 3 hours a week for 8 weeks. The training involves participation in therapy (except for the brief course), seminars, lectures, group conferences and field trips.

The evaluation of the program encompasses the trainees, the program, the clinical settings, and the community. Evaluation of the trainees is concerned with group and individual psychotherapeutic competence, knowledge of drug abuse and abusers, and skill in the plan and conduct of community drug education and prevention programs. Changes in more general personal qualities are also assessed. Efforts are made to evaluate general work behavior before, during, and after the training period through ratings of supervisors. A technique developed by Mayer and Myerson, using a series of alcoholism problem vignettes, has been used with these trainees. Other methods of evaluation include staff and trainee self-ratings, periodic followup, and yearly seminars to discuss post-training experiences. The program is evaluated by the trainees and independently by faculty-supervised students at the Florence Heller School of Social Welfare, Brandeis University. The impact upon clinical settings and the community is determined through followup interviews with staff members at the clinics where the trainees work.

CLERGY TRAINING IN DRUG USE AND ABUSE

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T15 DA00091 1971-1973

The purpose of this training program was to equip advanced students from six graduate theological schools in the Boston Area (through the Boston Theological Institute) with the knowledge and clinical skills necessary for them to assume leadership roles in community drug programs. This was achieved through an academic seminar accredited by the Boston University School of Theology coupled with clinical experience at either a drug rehabilitation center, the Washingtonian Hospital, or at the Adoles-

cent Counseling in Drugs. The field education program was also accredited by the Boston University School of Theology. Fifteen seminary students were selected for training for the 22 months of the project. Trainees received a total of 8 hours of graduate credit for the training program and 2 hours per semester for both the academic seminar and the field education. Courses for the first and second semesters respectively were: Seminar in Drug Use and Abuse and Supervised Field Education in Drug Use and Abuse. Individual and group progress were evaluated throughout the program and upon completion of the training.

PROJECT PLACE STATEWIDE CRISIS INTERVENTION TRAINING

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Project Place
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T15 DA00114 1973-1975

Project Place is a nonprofit organization, cooperating with community agencies, which operates a hotline, an emergency van, and a house for runaways. Workers from drug crisis centers throughout the state of Massachusetts are trained in telephone and inperson crisis intervention and referral techniques.

Trainees spend 8 weeks in the program which includes seminars twice a week on topics ranging from methadone maintenance to support programs for ex-prisoners; on-the-job training at a hot-line switchboard to gain an understanding of referral-system and counseling techniques; attendance at business meetings involving the various facets of counseling services; and informal meetings with experts in a number of fields critical to effective crisis intervention, including hard drugs, the law, and minority relations.

MICHIGAN

DETROIT INSTITUTE OF ADDICTION RESEARCH AND TRAINING

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T15 DA00178 1973-1976

The Detroit Institute of Addiction Research and Training, based in the Herman Kiefer Hospital and the Alexandrine House in Detroit, is training two groups: (1) mental health professionals who hold the minimum of an M.A. degree or equivalent, who have had one year of field experience in addiction, and who are employed in an agency involving drug abuse; and (2) ex-drug addicts who are training as paraprofessional addiction rehabilitation counselors (ARC). The training of ex-addicts is considered a new careers program in mental health. The professional program has two 6-month sessions with 12 trainees in each; the paraprofessional program runs for 1 year with 15 trainees.

The professional program prepares the trainees to (1) improve the services offered by their employing agency, (2) administer and supervise drug programs, (3) assist in planning for total rehabilitation and (4) assist the community in preparing more effective educational prevention and treatment programs in Michigan. Trainees participate 3 days per week, 1 day in classroom instruction and 2 days for interning or on-the-job training at treatment facilities. Group therapy sessions and trips to other facilities are included. A large number of treatment centers in the Detroit area participate in the internships. After the first 13 weeks, the trainee is placed in a clinical situation for specialized experience and, where practical, the trainee assumes responsibility for treatment under supervision. The professional's employer and the training program together pay the trainee's salary.

The paraprofessional program is an extension of an existing program and attempts to address both academic and technical deficiencies. By the end of the training period, the paraprofessionals are able to carry out, under professional supervision, a variety of operational tasks. The trainees are referred from various treatment centers in Detroit, being selected because they possess the greatest promise in treatment. They participate 4 days a week in college level classes at Kiefer Hospital, for which they receive an Addict Rehabilitation Counseling Certificate from the Wayne County Community College (WCCC). All courses are fully transferable to the 4-year State universities in Michigan. In addition to taking course work and seminars, they also participate in daily half-hour sessions to build up ego strength, communication skills and leadership. Each trainee works at five clinics for periods of approximately 10 weeks each.

Program evaluation is conducted by periodic

written and oral tests followed by evaluation of the trainees by the program staff, supervisors, and the trainee himself. The trainee also evaluates the program and agency where he works. Followup procedures are designed for both the professional and the paraprofessional trainees.

ALCOHOL AND DRUG ADDICTION

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T01 DA00187 1973-1978

This 1-semester speciality in alcohol and drug addiction attempts to prepare graduate students in the behavioral sciences to become active in the current health problem of addictive disorders. Enrollees receive training in the addictions considered as a pharmacologic, psychological, and social problem. A practical field experience is included. It is believed that in this expanding field the need for trained people will increase.

Students are selected from the master's program in The Graduate College. In addition, postgraduate training is offered to psychologists, social workers, etc., who are already engaged in dealing with addictive problems in their work. It is felt that the people to be trained will provide leadership in prevention, treatment, and rehabilitation programs in the future.

The program consists of 17-19 hours for 1 semester. Eleven hours are related to alcohol and drug issues as follows:

6 credit hours–Practice Seminars: Clinical and Community Interventions
3 credit hours–Etiology of Addiction
2 credit hours–Pharmacology

In addition, the following activities are offered:

6-8 credit hours–clinical experience
5 credit hours–electives.

A certificate acknowledges that the course work has been taken. The interdisciplinary nature of the training is emphasized. An academic committee, a field education committee and an advisory committee deal with problems in program, training, and organization.

Admissions to the program consisted of a first class of 15 students for the winter semester, 1974. Each year thereafter 20 students have been enrolled. Student, program, and curriculum reviews have been obtained. Field training is evaluated by the appropriate committees. Data is obtained on the career development of graduates and on additional training needed by them in their work in the field. An outside evaluation team consisting of one academician and one agency person does onsite inspections of the training and provides a written report.

MINNESOTA

HEALTH PROFESSIONALS DRUG ABUSE EDUCATION PROJECT

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T15 DA00077 1972-1975

This Drug Abuse Education Project at the University of Minnesota Health Sciences Center (Health Services Continuing Education) provides existing health professionals with a better understanding of drug-related problems and their solutions. Trainees are physicians, nurses, pharmacists, social workers, health educators, and health care administrators residing in Minnesota, South Dakota, North Dakota, and portions of Iowa and Wisconsin.

The objectives of the program are to (1) provide short-term training in appropriate procedures for emergency treatment of drug reaction, (2) eliminate judgmental attitudes, (3) stimulate interest in the drug abuse field by using sensitization experiences, (4) teach communication and group process skills that will facilitate community organizational activity by participants, (5) provide awareness of the professional's role in drug abuse and information about the training in its treatment (6) involve participants in current abuse and addiction treatment programs, and (7) provide evaluation of project actions and results.

To meet these objectives, a four-phase project has been implemented: (1) sensitization workshops held in upper Midwest communities to alert health professionals to this health problem and to the opportunities for improving their capabilities in treatment and

prevention, (2) general seminars on treatment techniques and the use of existing community resources for professionals who wish to improve their capabilities and better understand these problems and their solutions, (3) specialty seminars on comprehensive approaches to specific problem areas, such as the establishment of a crisis intervention unit or family counseling, and (4) internships with treatment agencies so that the skills learned can be adapted to the needs of the home community.

Emphasis is on the use/abuse of social and prescription drugs as well as illicit drugs. Diagnostic and referral skill development for all types of chemical dependency problems is stressed. Courses include: basic helping skills; counseling the alcoholic and other drug dependent persons; chemical dependency: a family illness; the disease process, and social implications of drug abuse; critical issues for the health professional: the abuse of social, prescriptive, and illicit drugs; and internships in alcohol and drug abuse.

CHEMICAL DEPENDENCY COUNSELING PROGRAM

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T01 DA00085 1973-1976

This ongoing program in drug dependency counseling was previously financed by a private foundation, the Butler Foundation. Prior to NIDA funding, 726 persons completed the course over a 3-year period. There continue to be about 160 applicants a year.

Training in drug dependency counseling consists of classroom work and a practical internship. Academic subjects covered include psychosocial and environmental aspects of drug use and abuse and counseling techniques. Trainees taking coursework receive university credit; graduate credit or medical school credit courses are also available. In the internship the trainee is assigned to work in a variety of counseling capacities.

Cooperation has been obtained from the university, surrounding hospitals, halfway houses, penal institutions, and mental health and detoxification centers. Completion of the 6-month clinical internship leads to certification as a lay counselor.

The selection of trainees from the drug abuse population helps to reach those who need help. In addition, these special trainees learn new skills.

MISSOURI

SOCIAL WORK DRUG ABUSE

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T01 DA00035 1972-1975

The School for Social Work established a new training program through this grant to prepare social workers for services to narcotics addicts and drug abusers. The specific aims of the training project are twofold: (1) to provide course content for students who will work in community mental health and who need a basic background focused on drug abuse; and (2) to provide for the specialized training of students planning to work in the field of drug abuse as administrators, program managers, developers, coordinators, and/or therapists and counselors.

Four different field facilities in the St. Louis area cooperate on the practicum arrangements. Students seek their own field placements in the area of their interest. Consultants from St. Louis and the State programs serve as guest lecturers.

As a result of this grant, two new courses and one new supervisory technique were developed, and a pilot video tape on drug education for junior high students was produced. The trainee group of 250 graduate students is working toward a degree in social work.

RESEARCH TRAINING PROGRAM

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T01 DA00094 1972-1975

This program is designed to augment the training of professionals in the health-related disciplines by supplementing their career training with specialization in the drug addiction area. The primary objective is to provide training which will enable the students to apply their skills to the problems of drug addictions. The program is interdisciplinary and provides graduate level training.

The training program agenda includes the organization of available knowledge and ideas relevant to drug addiction, the identification and practice of applied research methods, and specific field experience and research in programs treating drug use and addiction. This training program is implemented through interdisciplinary seminars that include guest lectures by specialists with relevant experience in research or treatment in the addictions area. It is tailored to the individual student's graduate program and includes supplementary course work, independent research, and thesis or dissertation. Emphasis is on the examination of various kinds of research experience in ongoing programs dealing with drug addictions. To achieve that end, training is developed around three areas: (1) epidemiological studies, (2) treatment approaches, and (3) research and evaluation techniques.

SOCIAL WORK TRAINING PROGRAM IN DRUG ABUSE

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T01 DA00116 1973-1976

The School of Social Service of St. Louis University offers a 2-year graduate training program for social work students. The university's existing program for master's degree candidates is being expanded through this project to include training in the drug abuse field and in other areas of social work which are indirectly related to drug abuse. The program consists of interdisciplinary classwork training and a field practicum in social work agencies.

Courses deal with community approaches to drug abuse, social problems of addiction, the drug culture, and the law and drug abuse. The courses also cover the area of alcoholism. Indirect education of faculty and students is provided through an increased emphasis on the social work implications of drug abuse.

Field instruction, which includes a wide variety of treatment modalities, is offered at St. Louis State Hospital (which has a detoxification unit and a program for adoloscent drug users); NASCO West, a rehabilitation program for young adults; The Mental Health Association of St. Louis; and Metropolitan Traveling Drug and Treatment Centers. Information on the educational evaluation system is available in the "Preliminary Report of the First Five-Year Evaluation of the Generic Social Work Program at the School of Social Service." Long-term evaluation concerns students' performance in the field after graduation.

NEW YORK

NATIONAL COMMITTEE ON EMPLOYMENT OF YOUTH

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Paraprofessional Upgrading Project
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Addiction Services
National Committee on Employment of Youth
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T41 DA00145 1973-1976

This project accepts into an academic program at the community college level 30 paraprofessional trainees--both male and female ex-addicts and principally minority group members--now working in New York City drug abuse agencies.

The training program consists of 1 full working day a week in formal academic study at LaGuardia Community College and at a site made available by one of the participating agencies. After 18 months of classroom experience at LaGuardia Community College, employers' work sites, and general working experience, 67 college credits are completed and trainees earn an A.A. in Human Services degree, with a concentration in addiction services. Subsequently, it is hoped that at least 20 enrollees will pursue an individualized baccalaureate program at a senior college in the C.U.N.Y. system, continuing 1 day a week of released time for academic studies, thus

relating their work experience to planned programs of study.

This project works in conjunction with the consortium of six New York City voluntary drug abuse programs. Their purpose is to demonstrate how paraprofessionals in the field of drug abuse and treatment can be further trained and educationally enriched, not only for improved job competence, but for mobility and personal career development.

DRUG ABUSE TRAINING PROJECT

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T15 DA00041 1972-1975

The North Shore Hospital has established a program for continuing education and training in the skills and techniques of treating drug addicts and abusers. Both long- and short-term training are provided for five categories of trainees: school personnel, medical and allied health personnel, paraprofessionals and community workers, undergraduate university students, and selected special interest groups. Approximately 400 trainees per year participate.

The short-term training, consisting of three to four consecutive 2-hour sessions, is planned for professionals, such as physicians and law enforcement officers who are involved with only specialized aspects of the drug abuse and addiction problem.

The long-term training program is a practicum, utilizing the extensive Drug Treatment Program of the hospital as the training ground and providing actual experience in all phases of the treatment program, including interaction with professional staff and the addict-patients. C. W. Post College has arranged to expand its offerings in the drug area, in cooperation with the program provided at the hospital.

Space is rented near the hospital for both the Drug Treatment Center and the Drug Practicum Training Program. There are also satellite clinics in two disadvantaged areas where supervised practicum training occurs. A number of courses are offered in the North Shore program including: the addict as a person; adolescent development and counseling; addiction, and abuse: theories of explanation; current approaches to drug abuse information for teachers; current approaches to drug treatment and drug prevention; drugs and society; drugs and the law; educational and vocational rehabilitation of an addict; longitudinal study of a drug abuser; pharmacological principles of drugs of abuse; psychiatric problems of drug treatment; and social resources of the drug-involved individual.

HARLEM ADDICTION AND REHABILITATION TRAINING PROGRAM

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T41 DA00253 1974-1976

The Harlem Addiction and Rehabilitation Training Program is cosponsored by Malcolm-King College, Skills Advancement, Inc., the Division of Community Psychiatry, Harlem Hospital, and other community service agencies. It is specifically designed to train, or increase the skills of, workers who are involved in a treatment and rehabilitation program for heroin addicts in the Harlem community.

The program provides training for 75 to 100 students in five training cycles, extending over a 60-week period. Each cycle accommodates a minimum of 15 students and includes courses in psychology, drug abuse, urban studies, administration, supervision, and English. Students earn from 13 to 16 hours of college credit toward an undergraduate degree. Each course includes 15 class sessions which meet for 2½ hours per week—the equivalent of 1 semester and three college credits.

A description of some of the courses offered follows:

Administration helps students to develop and set up specific ways they can improve the functioning of their agencies; for example, the process of planning and conducting intra-agency workshops, seminars, and staff meetings.

Drug abuse seminar (urban studies) presents major aspects of both drug addiction and rehabilitation from addiction. The specific context in which

material is presented is that of life in black and Puerto Rican communities.

Supervision (personal psychology) concerns itself with specific job roles and job functions of persons working within addiction-services agencies and the treatment process both individually oriented, and group oriented.

TRAINING IN DRUG USE, ABUSE, DEPENDENCE, TREATMENT

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T15 DA00261 1971-1977

This program provides workers in various disciplines and specialties with an opportunity to interrelate with one another, improve clinical skills, and remain abreast of innovative treatment and philosophies in the area of drug abuse. Over a 2-year period the program has provided training to 2,560 participants from 400 different agencies utilizing 231 faculty members. The highly skilled multidisciplinary staff, along with equally competent outside personnel, contribute to training sequences geared to the needs of a variety of people exposed to drug abusers.

Goals consist of ultimately reducing the problem of drug abuse; of educating and training workers in drug abuse treatment and prevention; and of sharing the basic insights, findings, and techniques learned through years of experience at Beth Israel Medical Center and other New York area treatment facilities. In addition the program continues to orient specialized groups to recent developments in the drug field. It especially facilitates discussions on the challenge to these specialized groups and their role in working toward reducing or eliminating the problem of drug abuse.

BILINGUAL-BICULTURAL DRUG TRAINING PROGRAM

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National Puerto Rican Forum, Inc.
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T41 DA00255 1974-1976

This bilingual-bicultural training program incorporates alcohol abuse into the drug treatment program.

The program provides services for trainees from drug programs in New York City. There are two training cycles, the first lasting for 15 weeks and the second lasting for 20 weeks. Following each training cycle, there is a 6-week period devoted to followup, evaluation, and reporting. Workshops are held every third and fourth class meeting. Emphasis is being shifted from the culture courses to administration and management in the second year.

Courses offered are basic occupational Spanish language skills training (BOLT), the Puerto Rican family and culture, practice skills in human services, introduction to supervision (Hispanic and non-Hispanic staff), introduction to administration-management, the drug addict, and alcoholism.

MASTER OF SCIENCE IN RESEARCH ON SOCIAL PROBLEMS

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T01 DA0057 1972-1976

Hunter College has instituted a new type of graduate degree in Social Science with a sharper focus on empirical research than the traditional M.A. degree. The program develops skills in research useful to community action agencies, with special attention being given to problems dealing with drug addiction and related areas, such as poverty and deviance.

This is a 2-year program for trainees with a B.A. The curriculum provides a blend of practical and didactic experiences.

In the first year, trainees spend 1 day per week in a clinical setting related to drug treatment while their coursework covers such areas as empirical research, social problems, socialization of the self, programming and advanced statistics, deviant behavior, and the sociology of poverty. Content of the courses is addiction oriented.

In the second year, students become interns in a community action agency for a full semester. Curriculum includes the drug culture and its implications for urban society; action programs: the cure of drugs, community organizations; and advanced work in research techniques and problems.

A major goal of the program is to provide training for minority group students.

INTERVENTION WITH DRUG ABUSERS–CROSS CULTURAL, CROSS REGIONAL

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T01 DA00014 1970-1974

This project provides for a combined program between universities in New York City and San Juan and an exchange of student trainees to study and practice social work focused on the social and cross-cultural problems encountered in drug abuse services in these two cities.

Since Puerto Ricans constitute 40 percent of the drug abusers dealt with in New York City, the trainees from San Juan, who know the language and culture of these people, contribute much to their treatment.

Narcotic addict clinics (some of which work through methadone maintenance programs and Phoenix Houses), as well as clinics for abusers of hallucinogens and amphetamines, are available for field work for the trainees.

SOCIAL WORK–DRUG ABUSE

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T31 DA00042 1972-1977

Fordham University School of Social Service in conjunction with the Drug Addiction Program of the South Bronx Model Cities Program operates a Drug Addiction Practice and Teaching Center. The center's mission is to expose the social work practitioner, faculty and students to a comprehensive drug addiction program for effective practice in today's metropolitan area, particularly for meeting the needs of the Puerto Rican community. Fordham strongly believes that the battle against drug abuse must be fought within the ghetto areas.

Two field units have been developed for first and second year students within the network of facilities offered by the Drug Abuse Program. The school is committed to service in poverty areas and has developed a good working relationship with the Drug Addiction Service in the South Bronx area. The school has a history of active work in the Puerto Rican community.

During the course of this grant the School of Social Work shifted its curriculum to focus on the direct delivery of services, the management of services and the social policy and planning aspects of social work and social welfare.

MONROE COUNTY COMMUNITY ORGANIZERS, PREVENTION AND INFORMATION PROGRAM

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T15 DA00263 1975-1978

The basic purpose of this project is prevention of drug abuse. This objective is being accomplished through a training program for the Board of Directors of Monroe County Community Organizers, the Youth Council of MCCO and staff of the program in all areas of drug prevention education and community economic development. The major focus of the program is to train youth for a vocation. Trainees in the program consist of youth and young adults.

The Monroe County Community Organizers has several facilities located in the Rochester Community. These facilities are a youth center, administrative offices, a community liquor store, night club, and a small business and program center through Haiti Shop. The Haiti Gallery provides a twofold work experience for trainees. First, it provides cultural enrichment activities such as repertory theatre, street drama, music, tribal art, etc. Trainees are also

provided with guidance and leadership in developing their creative abilities through playwriting, casting, and directing.

Included in the project is an ex-inmate training program. The main objective is to assist the ex-inmate to reestablish himself in the community and to encourage him to work with the youth of the program.

HEALTH AND RELATED PROFESSIONS IN NARCOTIC ADDICTION AND DRUG ABUSE

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5T01 DA00105 1972-1974

This is a comprehensive training program for all levels of professionals and paraprofessionals. Training is provided for (1) undergraduates in medicine, allied health, nursing, social welfare, counseling and clinical psychology; (2) predoctoral and postdoctoral students in the above areas; (3) practitioners in health professions and for health affiliated professionals such as ministers, security officers, probation workers, etc. The training takes place at SUNY, Stony Brook. Secondary sites include Long Island Jewish-Hillside Hospital, Queens Hospital, Central Islip State Hospital, Northport V.A. Hospital, the Student Health Service at Stony Brook; Nassau County Medical Center, and South Oaks Hospital.

Didactic and clinical training with patient contact are supervised. The training is diverse according to the needs of the recipient. For example, first-year medical students receive basic science information on the addictive diseases within the context of established courses in pharmacology, physiology, psychology, etc., and also through special seminars. A part of the second-year clinical clerkship involves assignment to the narcotic and drug addiction treatment unit of Central Islip. The third year's exposure varies from a 1-month assignment at a drug abuse treatment or research program to incidental exposure in the course of emergency room and ward assignments.

A 1-month course and a 10-week course are offered throughout the year for training some of the community's 550 doctors, nurses, and social workers. At emergency rooms and the three State hospitals in the area a series of seminars and case demonstrations is given at each locale. The training of allied health personnel also varies, much of it occurring during evenings, weekends, and holidays.

NORTH CAROLINA

PROFESSIONAL TRAINING IN DRUG ABUSE

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T15 DA00048 1972-1975

This NIDA grant provides for professional training in drug abuse at Duke University Medical Center. Training is divided into two phases. Phase I is comprised of periodic continuing education sessions for health professionals over a period of a year. In addition, the program provides for consultation with the trainee in his home community and followup evaluation.

The second phase of the program is comprised of an inter-disciplinary postdoctoral training program, which provides clinical research experience to a variety of professionals, including psychiatrists, psychologists, pediatricians, sociologists and anthropologists. The primary experiences that can be selected by postdoctoral fellows cut across disciplinary boundaries and might include such experiences as adolescent studies, ethno-pharmacology, evaluation of treatment facilities and strategies of basic laboratory research. Trainees are encouraged to participate in both clinical and research aspects of the total training program.

OHIO

COMMUNITY DRUG WORKER TRAINING PROGRAM

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Youth Development Program

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T02 DA00124 1973-1976

This training program is designed to provide university undergraduate students with skills in counseling juvenile court probationers, referred by the court for drug offenses, and their families. The objective is to recruit graduates into mental health professions related to drug abuse.

Trainees consist of undergraduate students who have completed requirements of "Sociology 355B—Drugs, Consciousness, and Society." Preparation for the semester-long program includes a 4-week training session and a continuing seminar which includes field experience. Students also consult with probation officers.

Each trainee counsels three probationers who are referred by the juvenile court for drug offenses. Parents of the probationers participate in the program which provides a community-based alternative treatment for the juvenile court.

Evaluation of the program is provided by a control group of 10 students who also counsel probationers. The results achieved by the trainees who participated in the training program are compared with those who did not participate in the training program.

HOSPITAL DRUG ABUSE, TREATMENT-TRAINING PROGRAM

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T15 DA00123 1973-1976

This is a 3-year program to train emergency room personnel in the management of drug overdose crises. Sixteen individual classes are organized annually in which 50 persons at a time receive intensive training. Each faculty team consists of a physician, nurse, mental health professional, and an indigenous worker with special interest in the drug area. Each member conducts 16 classes with four persons per class. The classes consist of 6 hours of lectures by the team followed by 2 hours of discussion. The students receive instruction in drug identification, diagnosis, toxicological testing, and detoxification techniques, as well as community resources and the legal and policy aspects of drug abuse.

Evaluation of the program is obtained by use of a drug abuse treatment test given to students before and after each course. Student evaluation forms are also completed, and a followup inquiry is made of the trainees 3 months after attending the course.

The program is directed by a Hospital Drug Abuse Treatment-Training Program Committee made up of multidisciplinary representatives. This group recommends faculty, develops the curriculum, and evaluates results. The program draws professional support from the Ohio Mental Hygiene and Corrections Bureau of Drug Abuse, the Ohio State University College of Pharmacy, and the Ohio Hospital Association.

PENNSYLVANIA

COMPREHENSIVE TRAINING FOR DRUG TREATMENT SERVICES PROGRAMS

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T01 DA00281 1975-1977

This project emanates from a former Temple University Mental Health Center located in North Philadelphia, which is currently operating under a community elected board. This is a comprehensive treatment program ranging from detoxification to inpatient and outpatient methadone treatment, vocational rehabilitation, and other services. This community mental health center provides service to a predominantly minority and underserviced community.

The training is for a total staff of 58 persons—28 paraprofessionals and 30 professionals. The professional staff consists of nine counselors at the B.A. level, four administrators at the master's level, five nurses, four M.D.s, and eight psychologists. Of the 28 paraprofessionals, nine function as secretaries

and receptionists. The other 19 are in counseling positions. All staff members are enrolled in the initial phase of the program. Twenty-three of the 58 enrollees are participating in specialized academic training at either Philadelphia Community College (PCC) or Temple University. They receive academic credit after successful completion of this training.

The general curriculum is inservice and is provided by a variety of consultants. The course in human behavior which is part of the general inservice curriculum has been prepared for them by Philadelphia Community College. It includes sensitivity training for greater appreciation of client needs and interpersonal staff-group cohesion. The general curriculum can be completed in 45 hours. Subsequent to this, assessment of learning and motivation occurs. Additional curriculum is being provided for credit by Temple University and P.C.C.

The training is phased in a manner to be taken over a 2-year period. Academic credit is provided at the A.A., B.A., M.A., M.S.W., and Ph.D. levels. the purpose of this is to bring all staff (58) and faculty (25) together to discuss ideas initially, to share opinions and feelings, and to create structure for the curriculum. The second phase, consisting of the same people, provides fluid evaluation and feedback and incorporates this into the second year's training. Throughout the training curriculum experience they are exposed to constant supervision, both by consultants and other staff personnel. Evaluation techniques are still being developed; however, they are currently studying grades, shifts in attitudes, and actual work performance. A very interesting aspect of the evaluation is to elicit the client's view of individual and program effectiveness relevant to consumer needs.

ADDICTION SCIENCE TRAINING FOR MEDICAL STUDENTS

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T01 DA00136 1973-1976

This 3-year program at the Medical College of Pennsylvania provides medical education on drug and alcohol abuse. Training is both didactic and clinical. The academic part of the program involves several different areas of the medical school and hospital in a multidisciplinary effort emphasizing liaison teaching. Clinical experience is offered through a drug abuse consultation service which provides a wide range of diagnostic and therapeutic services to patients with drug problems. Teaching methods include lectures, seminars, and case supervision. Clinical teaching is through management of inpatients and outpatients under staff supervision.

Trainees are students and graduates of The Medical College of Pennsylvania; thus the training impacts on students in the internship and residency programs. Staff members are from the various departments of the medical school, and outside consultants are utilized. About 600 medical students, 400 interns and residents, and 350 faculty and staff members are involved. The central emphasis of the program is on clinical teaching in the hospital and at the community mental health center.

CONTINUING EDUCATION IN DRUG ABUSE FOR PHYSICIANS

Sydney Pulver, M.D.
Director
Continuing Education Project
The Institute of the Pennsylvania Hospital
111 North Forty-Ninth Street
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(215) 829-2771
T15 DA00018 1972-1975

This is a complex, multiple-approach program designed to improve the care of patients who abuse drugs. By educating individual physicians and special groups—medical school faculties, chiefs of staff, residency training directors, administrators, and college health educators—the program aims at increasing practitioners' ability to recognize, treat, and prevent drug abuse in their patients. One of the premises of this program is that physicians will accept and assimilate material presented to them by coprofessionals more easily than if such material were presented by outsiders.

Both formal and informal instruction in seminars and continuing education courses are offered to the trainees, who are drawn from the Greater Delaware Valley, and include general practitioners, internists, pediatricians, and others. Courses offered cover most of the major drugs of abuse including stimulants, sedatives, marihuana, narcotics, and hallucinogens and range from pharmacology to diagnosis and

treatment. The course content provides specialized training for each of the four groups on dealing with drug abuse in their patients. Instructors are drawn from the Philadelphia area. The program is guided by an advisory council that meets twice a year and is evaluated by various proven measurements.

TEXAS

CHICANO DRUG TRAINING INSTITUTE

Ramon Adame
Executive Director
Chicano Training Institute
Aliviane Inc.
P. O. Box 200
El Paso, Texas 79943
(915) 779-6669
T41 DA07022 1975-1978

This is an individualized inservice training program geared to the problems of incentive, motivation, academic credentialing, and counselor skills acquisition. The training project is targeted for line staff of some 40 drug abuse treatment programs in the Southwest. Ten of these programs will be the beneficiaries of training each year.

There are two major training components: core and didactic. Each of the two components includes four phases of training (work): (1) needs assessment; (2) delivery of a training plan, (3) didactic-academic work, and (4) reinforcement.

Actual training is delivery by two-person consultant teams. Each team is composed of one professional and one para-professional trainer. Three training days have been allotted to each trainee (program) per phase; that is, each trainee and/or program has twelve training days per year built into the training design. Included in this design is the delivery of week-end accredited courses during phases III and IV.

The main training facility is located in San Antonio, Texas; however, the actual training is done in each individual program in 10 cities within the Southwest and utilizes the expertise of training consultants.

THE ALIVIANE TRAINING INSTITUTE

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The Aliviane Training Institute
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P. O. Box 200
El Paso, Texas 79943
(915) 779-6669
T15 DA07028 1975-1978

The Aliviane Drug Abuse Training Institute is undertaking a program of training and instruction with the following target populations in El Paso, Texas that are working with drug abuse clients: the social agencies, the educational community, the criminal justice system, and the community organizations.

The program involves the implementation of four training cycles and one accredited 3-hour college course. In addition the program serves as a drug abuse resource center where materials can be made available to the community. Its main goal is to establish a model for the El Paso area and then within 2 years institutionalize it in the El Paso Community College.

Aliviane is carrying out this program in two tracks. The first track consists of short-term seminars. The second track consists of an accredited 3-hour college course offered under the auspices of the El Paso Community College.

The program is serving a total of 85 trainees during the initial training period: 60 for the short-term track, and 25 for the accredited course. Tuition is paid for all trainees and books are furnished.

DRUG ABUSE EDUCATION PROJECT

Guadalupe Gibson, M.S.W.
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Worden School of Social Service
Our Lady of the Lake College
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T01 DA00055 1973-1976

The 18-month interdisciplinary and bicultural program provides classroom instruction about drugs, the drug abuser, and the social and cultural factors of the drug problem. Special attention is being given to the drug problem as it relates to the Mexican-American population. Field experiences in a variety of agencies in the drug field are also provided.

Phase I trains social work students for jobs in the drug field. During the first year students spend 3 days

per week in classroom study and 2 days per week in a field practicum. During the second year students participate in a block placement field practicum on a 40-hours-per-week basis for the first semester; the second semester is devoted to full-time classroom instruction.

The second phase of the program begins after the initial 18-month period. At this time training is expanded to include students from other disciplines such as law, nursing, educational counseling, medicine, urban studies, and health care administration.

Personnel include a project director, an ex-addict with extensive knowledge of the street drug scene and the barrio, and an administrative secretary.

A followup study of graduates to determine their place of employment immediately upon graduation and then once a year for 2 years is part of the evaluation procedure for the program.

VIRGINIA

DRUG ABUSE PREVENTION TRAINING

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Virginia Commonwealth University
Academic Center
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T01 DA00071 1972-1975

With this grant, the School of Social Work at the Virginia Commonwealth University developed a training program to provide field instruction and classroom courses for master's level social work students in the field of drug abuse prevention and treatment. The program emphasizes field training in an interdisciplinary effort with the Department of Psychiatry, Medical College of Virginia, Health Sciences Division, Virginia Commonwealth University, and with the Council of Narcotics and Drug Abuse Control, Commonwealth of Virginia. The program also includes the development of short-term interdisciplinary educational institutes in the field of drug abuse prevention during the academic year.

The program provides social work students with: (1) field instruction experiences in planning and coordinating programs of drug abuse control and in providing direct services to drug abusers and their families, (2) current relevant information in the field of drug abuse prevention, (3) professional education in interdisciplinary treatment settings that deal with drug abuse, and (4) research opportunities in the field of drug abuse prevention.

Through collaboration with the Virginia Department of Corrections, social work services in the correctional system were established. This included the development of a survey form to help identify drug abusers in correctional institutions.

WASHINGTON

HUMAN SERVICES TRAINING INSTITUTE

William Payne, Ph.D.
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Human Services Training Institute
Spokane Regional Drug Abuse Training Center
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Spokane, Washington 99202
(509) 624-0131
T15 DA07013 1972-1975

This program established a Drug Abuse Training Center which utilizes a variety of community facilities to train approximately 675 people a year to deal with the drug abuse problem. Of this number, about 400 participate in specialized advanced training. Community facilities used include the Spokane Community Mental Health Center, Eastern Washington State College, Deaconess Hospital, and The Leadership Institute.

The Spokane Drug Coordinating Council coordinates the total training program, which operates on a contractual basis, with the cooperating organizations. It is also responsible for evaluating the effectiveness of the program.

The basic course is offered by the Mental Health Center on a flexible schedule to enable attendance. In addition to a series of 1-week courses, special short-term courses are provided over weekends.

Advanced training is given in counseling and crisis intervention as well as in the pharmacology, psychology, sociology, and legal aspects of drug abuse. Educational personnel receive advanced training more suited to their needs at the Eastern Washington State College. The cooperating hospital provides advanced training in drug abuse emergency room service for

nurses, ambulance drivers and police officers. The Leadership Institute provides instruction in group techniques. The Spokane Community Mental Health Center is a contractor for the treatment of narcotic addicts civilly committed under the Narcotic Addict Rehabilitation Act of 1966 and is available as a clinical demonstration for medical personnel.

Among the courses offered are those relating to counseling techniques, counselor training, drug abuse, drug and alcohol pharmacology, marital counseling, and evaluation and symptom control.

TRAINING IN DRUG ABUSE

Roger Roffman, M.S.W.
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University of Washington
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Seattle, Washington 98195
(206) 543-7414
T01 DA00098 1972-1976

Graduate social work students at the University of Wisconsin are trained to work in the area of drug abuse prevention and treatment. Course work includes a 2-quarter course on drugs and society and 1-quarter courses each in drug treatment modalities; evaluative research and the counter-culture; opiates and social policy; and psychedelic drugs: recreational implications and therapeutic potential. Field work includes a number of short-term, first-year rotations and a longer placement during the second year. Ex-addicts are used to provide interaction and feedback to students during their coursework and field training.

WISCONSIN

TRAINING IN SOCIAL TREATMENT OF DRUG ABUSERS

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T01 DA00093 1972-1975

This project is designed to provide field instruction for graduate social work students working in a new drug abuse program coordinated by the Dane County Mental Health Center. Ten students are supported annually, five in each year of the program. Wide-ranging field placements are available. A seminar on drugs and addiction is held for these students.

The field work is designed to assist the student in developing the following skills:

1. Analysis of the drug abuse problem by (a) giving the student experience in a variety of treatment and referral agencies located in metropolitan Madison, Wisconsin; and (b) giving the student opportunity to participate in a seminar format in which he may discuss and analyze characteristics of the abuser and evaluate some of the ways of dealing with problems; e.g., legal, medical, informational, etc.
2. Formulation of programs leading to problem solution through objective study of existing problems within the Madison community as well as of those which are reported in the literature.

Career Teacher Grants

CAREER TEACHER GRANTS

ALABAMA

Claudio Toro, M.D.
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Sponsor: P. H. Linton, M.D.
Professor and Chairman
Department of Psychiatry
University of Alabama
School of Medicine
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Birmingham, Alabama 35207
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T01 DAAA00217 1974-1977

The ultimate goal of this Career Teacher Training Program is the development of a curriculum in the addictive states oriented to deal with the patient's problems as well as problems of the therapist.

The trainee attended the Career Teacher Training Center on Addictions at Baylor University; participated in the Specialized Alcoholism Training for Physicians in the Municipal General Hospital, Harvard Medical School and Boston City Hospital, Boston, Massachusetts; and the Research Training Program in Alcohol Abuse, University of North Carolina, Chapel Hill, North Carolina. He will also visit six additional drug abuse and alcoholism programs.

Upon returning to the University of Alabama, the career teacher will provide specialized curriculum in the areas of drug addiction and alcoholism for medical students, residents in psychiatry, and other health professionals who are currently receiving training in the Department of Psychiatry, including physicians, assistants, nurses, occupational therapists, physical therapists, etc. The plans for curriculum are oriented toward a well-balanced exposure to different aspects of addiction, utilizing audio-visual material, self-instruction material, seminars, lectures, etc. The various settings in the Birmingham area, including inpatient units, will be utilized for practicum.

ARIZONA

Kenneth Russell, Ed.D.
Assistant Professor, Dept. of Pharmacology
Sponsor: Rubin Bressler, M.D.
Head of Dept. of Pharmacology
University of Arizona
College of Medicine
Department of Pharmacology
Tucson, Arizona 85221
(602) 882-6400
T01 DAAA0248 1974-1977

The University of Arizona Medical College is a relatively new school and has currently altered its curriculum from a standard 4-year to a 3-year program. The career teacher is being trained as a coordinator of narcotic addiction, drug abuse, and alcohol abuse education, and treatment services within the medical school.

By providing extensive substance abuse training to medical students, the curriculum will ultimately produce health care professionals in the community who are better trained in their attitudes toward patients with substance abuse problems and who are supplied with the information needed to treat the medical problems of substance abuse.

The career teacher spends the first year in the development of didactic lectures and course presentations to be offered to first and third year students. The second and third years involve strengthening the basic science programs and the initiation of clinical experiences in substance abuse for the medical students. Postgraduate education in drug abuse and alcoholism is being developed and offered to members of the staff and to other Arizona health professionals during the second and third years.

CALIFORNIA

Roland Atkinson, M.D.
Assistant Professor of Psychiatry

Sponsor: Louis Gottschalk, M.D.
Professor and Chairman
Department of Psychiatry
University of California
College of Medicine
Department of Psychiatry
Irvine Campus
Irvine, California 92664
(214) 633-9393, Ext. 487
T04 DA00204 1973-1976

This career teacher training program includes (1) tutorial relationship with a number of outstanding individuals affiliated with the University of California, emphasizing a range of addictive states including drug abuse and alcoholism; (2) special study visits to a number of identified programs in the addictions in various parts of the country; (3) local field work under supervision in a variety of service programs in the addictive states.

The trainee has expressed particular interest in the following areas: (1) the education of physicians regarding the roles of addiction in medical and psychiatric problems, and (2) the improvement of medical and general psychiatric service delivery system for addicts. He is interested in investigating the subjective effects of abused substances. He hopes to devote up to 25 percent of his time on this particular aspects of research, choosing nitrous oxide for initial work.

In the field of teaching, he proposes to add instruction in addiction to training programs for psychiatrists, medical students in other residency programs, undergraduate students, practicing physicians, mental health professionals and professional mental health workers, and volunteers as well as graduate students in the social sciences and psychobiology.

DISTRICT OF COLUMBIA

Alyce Gullattee, M.D.
Assistant Professor of Psychiatry
Sponsor: Samuel Bullock, M.D.
Chairman, Department of Psychiatry
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Department of Psychiatry
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Washington, D.C. 20059
(202) 745-6686
T01 DAAA00250 1974-1977

The goal of this program is to provide the career teacher with the opportunity to obtain additional skills and knowledge in the area of narcotic addiction, and drug and alcohol abuse. The trainee's professional growth will further the development of the university's curriculum design efforts through the inclusion of her inputs. This program will enrich the institution's information pool on addiction and, through her, help to establish a learning model which incorporates theory, practice and service in the community setting.

The trainee is devising an ongoing teaching model to begin with first year medical students and build upon that model for the succeeding three years of medical school training in the addictions. She is developing a scheme which tests her training impact on student acquisition of knowledge and skills; effectiveness of the interdisciplinary approach; impact on community institutions and services to the consumer; and methods of determining skills and resources needed by the students in order to intervene effectively in the fields of drug abuse.

The trainee is participating in the program at Downstate Medical Center, New York; the Eagleville Hospital, Eagleville, Pennsylvania; and the Haight-Ashbury Program, San Francisco, California.

GEORGIA

John Griffin, M.D.
Assistant Professor, Dept. of Psychiatry
Sponsor: Bernard Holland, M.D.
Chairman, Dept. of Psychiatry
Emory University
School of Medicine
Department of Psychiatry
Atlanta, Georgia 30322
(404) 377-2411
T01 DA00170 1973-1976

This program provides for the training of a career teacher in drug abuse and alcoholism at Emory University School of Medicine.

The grant proposes activities in the following specific areas:

1. Curriculum development
2. Curriculum evaluation

3. Development of self-study modules

In curriculum development, he has established firm liaison with the Departments of Pharmacology and Community Medicine so that alcohol and drug topics which are taught by these departments are coordinated with efforts in the Department of Psychiatry. Each medical school class has approximately 100 students, and all students are exposed to drug and alcohol material by each of these three departments.

In the curriculum development area, the career teacher is in the process of establishing cognitive objectives for the drug abuse and alcoholism curriculum.

A major goal is to identify clinical teaching resources and initiate clinical education programs.

In curriculum evaluation, the career teacher has questions on the substance abuse area. His experience with these questions should help him demonstrate their usefulness to the National Board of Medical Examiners in evaluating alcohol and drug abuse knowledge.

The career teacher is in the process of developing self-study modules using written materials and audio tapes. He has a small library of audio tapes dealing with substance abuse topics, and he hopes to introduce the students to the practice of listening to tapes at home, on the way to and from work, and during other relatively unused moments. He also has audio-visual equipment provided by the Georgia Mental Health Institute. Utilization of video resources is planned as a third-year activity.

ILLINOIS

Andrew Ho, Ph.D.
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Sponsor: Stephen Brinkley, Ph.D.
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College of Medicine
Department of Basic Science
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(309) 674-4718
T01 DAAA00218 1974-1976

Within the brief history of the Peoria School of Medicine no specialized curriculums relating to specific community problems had been fully developed. Through this grant, a curriculum in the field of addictive states is being provided.

During the first year of the program, the trainee attended the long-term training at New York Downstate Medical Center, Division of Alcohol and Drug Dependency, and visited six other centers for a short-term stay. After he became knowledgeable in the field of narcotic addiction, drug abuse, and alcohol abuse, his activities for the second half of the first year were devoted to developing and implementing the elective curriculum on drug abuse to the fourth-year medical students. In the second year the function of the consultation center is being established and curriculums for nurses and paramedical personnel connected with the school are being prepared. Curriculums for the second and third year medical students will be developed as a regular part of the educational process in pharmacology and psychiatry (3rd year). Seven additional alcoholism and drug dependence centers will be visited.

Cooperative relationships have been established with State and local mental health facilities which serve persons dependent on alcohol or drugs.

KANSAS

Robert Rhodes, Ph.D.
Associate Professor, Dept. of Psychiatry
Sponsor: Lee J. Denner, M.D.
Associate Professor, Dept. of Psychiatry
University of Kansas
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39th at Rainbow Blvd.
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(913) 831-6431
T01 DAAA00247 1974-1977

Previously, the University of Kansas Medical Center had no faculty person with primary involvement in the area of alcoholism. This program provides the trainee with knowledge and adequate time to develop a drug and alcohol curriculum, coordinate activities in these areas, and serve as liaison within the various schools and departments in the medical center and between the medical center and surrounding community.

In the first year, the trainee attended one of the career teacher training centers for a period of three months and also visited other alcohol and drug programs in the country, including Eagleville, the Drug Training Program at the University of Miami,

summer sessions of Schools of Alcohol Studies in Iowa, Nebraska, and Rutgers, and similar agencies. There was participation and attendance, particularly in drug abuse programs, in such places as the University of Missouri's Kansas City branch.

In the second year, the trainee is developing course materials and instruction plans with the university's Department of Learning Resources, and he is preparing courses and seminars to be offered in the third year. In addition, the second year is being used as an outreach to make contacts with other departments, schools, and committees in the medical center to elicit interest in course participation in the third year of the program. The trainee is also making contact with community drug and alcoholism agencies in the Kansas City area.

The third year will be used to offer courses to psychiatry residents; to provide small group courses for certain groups such as nurses, police, social workers, ecology students, and others; to continue preparation of courses and lectures to be included in the undergraduate medical school curriculum; to attempt to stimulate research in drug and alcohol problems among medical students, psychiatric residents, and nurses who are engaged in research programs for theses and summer research activities. Finally, the trainee will bring about some development of self-instructional programmed courses related to drug and alcohol abuse.

MINNESOTA

Joseph Westermeyer, M.D.
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Department of Psychiatry
Sponsor: William Hausman, M.D.
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Medical School
Department of Psychiatry
302 Morrell Hall
Minneapolis, Minnesota 55455
(612) 373-8869
T01 DA00040 1973-1976

This career teacher project provides a psychiatrist with clinical, teaching, and research training in the field of alcohol and drug addiction.

During the first year, the trainee took courses in graduate teaching and postgraduate education, and in social deviance and the public health aspects of alcoholism and drug abuse.

Emphasis during the second year was placed on skills for the teacher, curriculum builder, and committee member. The trainee developed: an educational program dealing with alcohol and drug-related problems; courses for medical students and residents in family practice, medicine, pediatrics, and psychiatry; and a clinical program, in association with the University of Minnesota Hospitals, for alcohol and drug abuse.

The third year focuses on the implementation of service and educational programs and the administration of alcoholism and drug programs.

Throughout the 3 years, visits are made to chemical dependency treatment programs that employ a wide range of therapeutic modalities.

MISSISSIPPI

Geary Alford, M.D.
Assistant Professor, Dept. of Psychiatry
Sponsor: William Dudley, M.D.
Associate Professor, Dept. of
Psychiatry and Human Behavior
University of Mississippi
Medical Center
School of Medicine
Department of Psychiatry
2500 North State Street
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(601) 363-4411
T01 DAAA00242 1974-1976

This program prepares the career teacher to develop and implement educational, treatment, consultative, and research programs within the University of Mississippi Medical Center with the objective of educating physicians and other health professionals in the broad aspects of addiction. It provides academic and clinical training in addiction, incorporating the broad social, psychological, as well as biological aspects in the treatment and prevention of addictive disorders. The program will have a major impact at all levels of medical education.

During the first year of the award the career teacher spent time reviewing the area of addiction and also attended classes within the University of Mississippi School of Medicine. He attended the career teacher training center in addictions at Baylor and the alcoholism training program at Eagleville Hospital and Rehabilitation Center.

During all 3 years the career teacher serves on the addiction service of the medical center and spends time in the alcoholism unit of the V.A. Hospital.

MISSOURI

James Halikas, M.D.
Assistant Professor, Dept. of Psychiatry
Sponsor: Donald Goodwin, M.D.
Professor, Dept. of Psychiatry
Washington University
School of Medicine
Department of Psychiatry
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(314) 454-3045
T01 DA00023 1972-1975

The major goals of the program are to provide the following types of experience for Dr. Halikas:

1. Direct experience in the treatment of narcotic addicts and administration of narcotics treatment programs
2. Experience in the treatment of non-narcotic drug abusers and the development of appropriate treatment and community action programs
3. Experience in the treatment and prevention of alcoholism
4. Experience in research pertaining to narcotics addiction, drug abuse, and alcoholism
5. Supervised opportunities in improving teaching skills
6. Active involvement in the development of medical school curriculums with emphasis on treatment of alcohol and drug problems and training of professional personnel to deal with these problems
7. Active involvement in community psychiatry, especially areas dealing with alcohol and drug problems

The program at the university was augmented at the following training sites: (1) Washington University School of Medicine, Department of Psychiatry, St. Louis, Missouri; (2) St. Louis Narcotics Treatment Programs, under direction of Dr. Ray Knowles; and (3) Alcoholism Unit, Malcom Bliss Community Mental Health Center, St. Louis. Extended visits were made to drug and alcohol treatment and teaching centers located in other cities in the United States for participation in treatment programs and observation of program operations.

NEW YORK

Jules Golden, M.D.
Professor of Psychiatry
Sponsor: Alan M. Kraft
Chairman, Department of Psychiatry
Albany Medical College
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(518) 462-7521 Ext. 3336
T01 DA00039 1972-1974

Through this grant a current tenured member of the Albany Medical College faculty, Jules S. Golden, M.D., Professor of Psychiatry, was trained in the field of drug abuse and alcoholism.

The Department of Psychiatry's program helped to develop settings in the Albany area for the management of alcoholism and drug abuse. These include a Capital District Psychiatric Center, housing a treatment and rehabilitation program for alcoholism and one for drug addiction. Also there are plans for the development of a new alcoholism unit at St. Peter's Hospital in Albany, and for an expansion of the alcoholism and drug abuse program at the V.A. Hospital. The Whitney-Young Community Health Center was also involved in its neighborhood with preventive programs for addiction and abuse. In addition there were plans to develop an extensive medical school curriculum in the various aspects of drug abuse and addictions extending throughout the 4 years.

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Charles Buchwald, Ph.D.
Program Administrator
Career Teacher Training Center
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T01 DA00083 1973-1976

The Department of Psychiatry, State University of New York Downstate Medical Center operates a training center in drug dependence. This model of training dovetails with the anticipated needs that grow out of the Career Teacher Training Program.

The first step in this very task-oriented training program is the obligation on the part of the career teacher to begin developing an overall plan for the program at his home institution. The institution program plan constitutes the equivalent of a thesis for a graduate student. In contrast to the timing of a graduate thesis, however, planning for the institutional program is the first and major order of business, and the entire training program is directed toward developing that program plan and carrying it out.

At the beginning of this program the career teacher meets on a regular basis with the executive faculty committee of the training center until a first draft of the institutional program plan has been developed. The plan covers the teaching program, the clinical services program, the research program, and the administrative structure. He develops, in conjunction with the administration and faculty of his own institution, a list of priorities in these four areas on the basis of the first draft of the institutional program plan. The individualized training program for the career teacher is then designed.

Other elements include outlining a teaching program involving both didactic and clinical experience for medical students, interns, residents, nurses, social workers, and others in the medical profession. The training program provides the career teacher with sufficient actual experience in all of the four areas. He is also encouraged to participate at Downstate Medical Center in various interdepartmental activities, which are an integral part of activities of an active addictive disease program, and to visit other programs and facilities both in the New York vicinity and along the east coast.

Marc Galanter, M.D.
Clinical Instructor in Psychiatry
Sponsor: Jack Wilder, M.D.
Acting Chairman, Dept. of Psychiatry
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Bronx Municipal Hospital Center
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(212) 430-5561
T01 DA00197 1973-1976

An academic career teacher is being trained in narcotic addiction, drug abuse, and alcohol abuse to develop a curriculum in addictions for medical students, residents in psychiatry, and other trainees.

Prior to this grant there was no centralized training program in addictions at the university. The areas investigated by the trainee include: introducing biological and psychiatric aspects of drug and alcohol abuse into the undergraduate curriculum; adding more active training in psychiatric treatment during the internship period; and adding electives to enable third-year students to choose treatment and research experiences in the field of addictions.

The program includes training at the Albert Einstein College of Medicine, Methadone Maintenance Treatment Program; the Van Etten Program for the treatment of chronically medically ill addicts; the Bronx Municipal Hospital Center of Alcoholism Treatment Unit; and LOGOS, a residential therapeutic community for narcotic addicts. All of these are under the direction of staff members of the college, who are supervisors of the trainee's program. In addition, the trainee is spending a portion of his time at the Division of Alcoholism and Drug Dependency of the State University of New York.

John P. Morgan, M.D.
Assistant Professor, Dept. of Pharmacology
Sponsor: Louis Lasagna, M.D.
Chairman, Dept. of Pharmacology and Toxicology
University of Rochester
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Department of Pharmacology
260 Crittenden Boulevard
Rochester, New York 14642
(716) 275-2658
T01 DA00233 1975-1978

The primary purpose of this program is to continue and expand the career teacher's career in drug abuse education. He is (1) developing a course in drug abuse for second year students, (2) developing a

course for drug workers for which credit will be given at the certificate, baccalaureate, and postgraduate levels, (3) continuing to refine a course for administrative and paraprofessional personnel in a local adolescent treatment center, and (4) developing a correspondence course for physicians and other professionals within the School of Medicine and Dentistry. This trainee also anticipates offering a course on the legal aspects of drug abuse as an undergraduate course and indicates a desire to prepare publishable course outlines for general distribution.

PENNSYLVANIA

Sidney Schnoll, M.D.
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Sponsor: John Paul Brady, M.D.
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Psychiatry Clinic
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(215) 823-7000
T01 DA00195 1973-1976

The goal of this program is to design a curriculum within the university medical school to teach drug abuse and alcohol abuse to medical students, house staff, and practising physicians.

During the first year the trainee examined and evaluated, the larger and more established treatment programs that are operating in the Philadelphia area. He also visited a number of other centers, including Boston City Hospital, Kings County Medical School, Roosevelt Hospital in Manhattan, and the Addiction Research Center in Lexington. He attended the Career Teacher Training Center course at Baylor.

The second year of the program was spent largely in designing a comprehensive curriculum utilizing the university and community resources. The third year will implement the program as part of the regular medical school curriculum.

Kenneth Williams, M.D.
Assistant Professor of Psychiatry
Sponsor: Thomas Detre, M.D.
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(412) 624-2824
T01 DA00201 1973-1976

A training program is being carried out to develop the grant recipient's expertise as a medical educator in the field of narcotic addiction, alcoholism, and drug abuse.

As an introductory experience, the trainee familiarized himself with the facilities relating to drug abuse problems in Allegheny County. Progressing from this initial intensive exposure, he visited other programs throughout the country, comparing firsthand varying philosophies, staffing patterns, evaluation studies and treatment programs designed to serve other communities in order to gain as broad an experience as possible in seeing alternative approaches to drug abuse. He has included visits to programs having a particular emphasis in the following areas: basic research, methadone maintenance, concept house approach, soft drugs, and drug abuse education.

The trainee's program in alcohol abuse places an emphasis on exposure to a variety of programs specifically, those in the areas of basic science research laboratories, clinical research centers, treatment and educational programs.

Since the trainee has no formal preparation in principles of teaching, an intensive course specifically designed to prepare physicians for teaching is included. He will examine the working relationships between other university teaching hospitals and their local community agencies before returning to a university-affiliated, community medical center.

SOUTH CAROLINA

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T01 DA00058 1972-1975

This career teacher program provided training for the academic development of a psychiatrist as a faculty specialist in drug and alcohol abuse. He received training to develop skills in clinical treatment and prevention of alcohol and drug abuse, pedagogical methodology, administrative organization of

treatment and training programs, and clinical research training in substance abuse. As a result, he improved and developed teaching and training programs on substance abuse within the university.

TEXAS

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T01 DA00061 1972-1978

The Baylor College of Medicine, with the participation of associated hospitals and institutions, established a Career Teacher Training Center for medical and other university faculty in the fields of narcotic addiction, drug dependence, and alcohol abuse. The goal of the training program is to provide a full range of clinical and didactic experience for faculty-trainees in these fields, including exposure to research approaches and community programs. The training qualifies the career teacher trainees in leadership roles in this area of medicine after returning to their faculty assignments in their own universities.

The basic training period of 12 weeks is offered three times yearly: October-December, January-March, April-June. This is a highly concentrated educational experience which includes 6 hours per week of lectures, seminars, and conferences; a primary rotation through a series of research laboratories; and special assignments. Since the basic training course is offered three times yearly, it is possible for a trainee to split this up into two, or even three, periods, a workable schedule for a faculty member who simply cannot stay at an out-of-town training center for 3 months at a time.

A broad variety of programs and services in the field of alcoholism and addiction is available as part of the training program. A number of members of the faculty of the training program hold important posts in the various treatment centers in the Houston area. These programs include: (1) The Houston-Galveston Comprehensive Drug Abuse Treatment Center; the Houston V.A. Hospital, within which there is a 40-bed alcoholism rehabilitation ward stressing group psychotherapy and psychodrama, a 15-bed alcoholism treatment program in the context of the Human Relations Training Laboratory, a 20 to 25 bed alcohol detoxification program, and a posthospital followup program; (2) the Ben Taub General Hospital, which includes an extremely active emergency service treating both alcoholics and drug addicts; (3) the Drug Abuse and Drug Addiction Treatment Service of the Houston V.A. Hospital, which includes a 40-bed inpatient program, a day program, a large outpatient program, and a satellite clinic located in the ghetto area of Houston. The V.A. drug abuse and drug addiction service includes group therapy and therapeutic community techniques, methadone maintenance at both low and high dose levels, vocational rehabilitation and wide use of patients and ex-patients in community drug education activities. Also available are the Baylor Outpatient Psychiatric Clinic, which provides experience with middle-class alcoholics of both sexes, and the Newborn Service of Jefferson Davis Hospital, where work is carried out with babies of mothers who have been on drugs.

Kenneth Blum, Ph.D.
Assistant Professor, Department of
Pharmacology
Sponsor: Arthur Briggs, M.D.
Professor and Chairman; Department of
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(512) 696-6414
T01 DAAA00290 1974-1976

The primary purpose of this program is to train a career teacher in the area of drug abuse and alcoholism with special emphasis on curriculum development and establishment of a community continuing education program. The intent is to influence existing curriculums in the teaching of drug abuse, alcoholism, and alcohol addiction as an integral part of the training of medical students, dental students, nurses, V.A. personnel, and psychiatric residents and other health science center affiliates. A special lecture series is offered throughout the academic year for community-based individuals interested in the drug dilemma.

The first year of the grant covered a rather extensive travel itinerary. Phase A, Didactic Study, consisted of travel to prime training centers at Baylor College of Medicine in Houston, Texas. Phase B, Treatment Modalities, involved travel to Washington, D.C., International Drug and Education Training Center. Also, it included travel to Charity Hospital, Alcohol Treatment Unit in New Orleans, Louisiana, and to San Francisco and Los Angeles, California to review the projects at the National Free Clinic Council. The second year travel itinerary consists of travel to the secondary training center at Downstate Medical Center in New York City.

As a result of this program the career teacher will increase his knowledge in the field of drug abuse and alcoholism with special emphasis on treatment modalities. He can serve in an official capacity to coordinate medical school curriculums, continuing education programs for the community, establish an information library on drug abuse, and better inform students and faculty members about drug abuse. This will lead to increased participation in education, treatment, rehabilitation, and research in the addictive disorder area.

David Eiland, Jr., M.D.
Assistant Professor, Department
of Neurology and Psychiatry
Sponsor: Daniel Creson, M.D.
Chief, Division of Community
and Social Psychiatry
Department of Neurology and Psychiatry
University of Texas Medical Branch
at Galveston
Galveston, Texas 77550
(713) 765-2361
DA00078 1972-1974

The purpose of this program is to design a curriculum (through the utilization of university and community resources) to train medical students, psychiatric and family medicine residents, and other mental health professionals and paraprofessionals in the areas of drug and alcohol abuse.

University and community based programs will be utilized for clinical learning. Emphasis has been placed on research, training, and curriculum development.

WISCONSIN

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T01 DAAA00267 1974-1977

Existing training programs in alcohol and other drug abuses at the University of Wisconsin at Madison are lacking in overall coordination with no specific integrated teaching program. The University of Wisconsin includes a Health Science Center with Schools of Medicine, Pharmacy, Nursing and specialized programs in various paramedical areas. There is a Drug Information Center established on the campus and a Dane County comprehensive drug program. At the present time there is minimal teaching in the medical school in the field of alcoholism and drug abuse. A clinical pharmacologist with a specialty in drug abuse serves to further the integration of material on alcohol and other drug abuse.

During the first year the career teacher made scheduled visits to various programs in the Madison area including locally operated drug abuse, alcoholism, and mental health programs and attended specialized courses at the National Drug Abuse Training Center, the fall meeting of the American Society for Pharmacology and Experimental Therapeutics, the annual meeting of the Federation of American Societies for Experimental Biology, and the annual meeting of the Alcohol and Drug Problems Association.

During the second year he will hold conferences with key individuals on the university faculty to

provide specific elements of training in the area of alcoholism and drug abuse including psychiatry, law, social work, counseling, toxicology and drug information center. A 5-day visit to the New York State Research Institute on Alcoholism and Treatment Center in Buffalo, New York, and two- to three-day visits to treatment programs in Illinois and Minnesota are included in training activities.

The third year will be a continuation of second year activities with emphasis on more indepth training and the implementation of training programs in the field of alcoholism and drug abuse.

National Research Service Grants

NATIONAL RESEARCH SERVICE GRANTS

CALIFORNIA

CULTURE, LEARNING, AND INDIVIDUAL DRUG RESPONSE

Fellow: Jonathan Cowan, Ph.D.
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F22 DA05000 1975-1976

This project represents a continuation of current activity on state-dependent learning, and the social effects upon drug response in a small social system.

The first goal of the experimental work on state-dependent learning is to refine the tasks previously developed in order to make them more sensitive, and more appropriate to human interaction. The fellow is including a visit to another state-dependent learning laboratory at Washington University as part of this research, as this training will greatly improve his experimental technique. The visit is for approximately 2 to 4 weeks, timed to coincide with the running of one of their experiments.

Two new tasks will be developed and tested in comparison with other tasks selected for high sensitivity, using diazepam (about 20 mg., given orally) and placebo in the traditional factorial design. State-dependent learning with diazepam has never been tested in humans. Overton (1971) stated that the benzodiazepines, like alcohol, are known to produce strong dissociation in rats. The subjects in these studies will be males from 21 to 50 years of age.

REWARD EFFECTS OF OPIATES: NEURAL SUBSTRATES

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F22 DA00808 1974-1976

The project is to conduct a complex series of experiments with the common element being to identify relatively discrete areas of rat brain involved in the reinforcing action of morphine.

Two methods of inquiry will be used. The first involves making rats dependent on morphine by passive administration and then allowing them to self-administer opiates into a cerebral ventricle and other regions of the brain. By this technique, it is hoped to determine areas of the brain which are especially sensitive to morphine as indicated by change in rate of self-infusion.

The other method used is that of self-administered electrical stimulation of different brain sites. Studies of the effects of opiates on the rate of self-stimulation will be done. Attempts at inferences regarding the specific neurochemical substrates involved will be made by selecting sites dominated by one type of neurochemical mediator.

BIOCHEMICAL CORRELATES TO DRUG-INDUCED INTERNAL STIMULI

Fellow: Ronald Brown, Ph.D.
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F22 DA01242 1975-1977

The purpose of the study is (1) to delineate the biochemical and behavioral mechanisms by which mescaline produces internal discrimination, (2) to

determine whether tolerance can be induced or developed to three separate stimuli, and (3) to examine biochemical compensatory changes occurring with the development of tolerance. The fellow points out that following prolonged stimulation of neurohumoral systems, a compensatory decrease in the neurotransmitters' biosynthetic machinery is often observed. He hypothesizes that if mescaline's cueing action is mediated by 5-HT receptor stimulation, then compensatory decreases in the synthesis of 5-HT at the tryptophan hydroxylase step would be expected. Furthermore, such adaptive changes would be expected to play a role in the development of tolerance. It is believed that this hypothesis is testable by training rats to discriminate mescaline from saline and observing the changes in discriminability of mescaline and the activity of brain tryptophan hydroxylase following administration of mescaline. He hopes that a decrease in enzyme activity will correlate with the development of tolerance in this behavioral paradigm.

The fellow's previous studies have shown that mescaline can serve as an interoceptive cue in the control of operant behavior by stimulating CNS serotonergic receptors and that this cue can be produced by directly administering mescaline into the brain. He also believes that he has shown that the metabolites of mescaline do not play a role in this cue production. If this is so, then direct administration of serotonin into the brain using the intraventricular infusion system developed by one of his proposed sponsors would produce stimulus effects similar to those produced by mescaline. Other neurotransmitters will be used to show that they do not contribute to the mescaline cue. An additional approach will be the use of direct electrical stimulation of 5-HT pathways within the brain. Thus, if 5-HT mediates the mescaline cue, electrical stimulation of the appropriate areas should produce stimulus generalization. Lesioning of 5-HT rich areas of the brain will also be attempted. The second part of the study will involve a look at tolerance to the discriminative properties of mescaline.

IMMUNE ASSAY OF THE LEVELS IN BODY FLUIDS OF RATS

Fellow: Bruce Bromley, Ph.D.
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F32 DA05010 1975-1977

The disposition of D^9-THC and 11-COOH-THC in rats is being investigated by a sequence of studies as follows: (1) studies determining the feasibility of assaying D^9-THC and 11-COOH-THC *in vitro* from samples of blood, urine, bile and cerebrospinal fluids and possibly from other body tissues obtained from adult rats following administration of D^9-THC. Once procedures for removing, preparing and assaying these fluids and tissues are validated, they will be followed by (2) studies on the pharmacokinetics of *acute* administration of D^9-THC *in vivo* in anesthetized and in unanesthetized rats, to determine how the route of administration, dosage, and time interval affect the concentration of D^9-THC and 11-COOH-THC in the various body fluids. At the same time, (3) studies on the pharmacokinetics of *chronic* administration of D^9-THC *in vivo* will be run using techniques analogous to those of acute studies in unanesthetized preparations, to evaluate what effects tolerance to D^9-THC may have on the metabolism or distribution of D^9-THC and 11-COOH-THC. And (4) concurrently subject's *physiological response* to D^9-THC (body temperature change) will be monitored. In addition, studies of the correlation between *behavioral responses* (gross activity levels), degree of analgesia, and latency of rope climbing response and sample levels of D^9-THC and 11-COOH-THC will be initiated.

AN EXPERIMENTAL MODEL OF PROTRACTED PHYSICAL DEPENDENCE

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F32 DA05011 1975-1977

This research concerns narcotic addiction with reference to the neurochemical mechanisms underlying acute dependence, the abstinence syndrome, protracted physical dependence and recidivism.

The fellow will quantify primary and protracted physical dependence in several strains of mice that are

dependent on morphine and compare these parameters to acute effects of morphine as well as to neurochemical changes in the brain. The hypothesis is that the remanifestation of physical dependence in postaddict mice has an underlying neurochemical basis and is due to longlasting derangements in homeostasis which is produced by the initial induction of physical dependence. He will characterize the experimental model itself before attempting to find the underlying neurochemical basis, by using sophisticated pharmacokinetic techniques suggested by Takemori.

He expects to show a rapid remanifestation of so-called tolerance and dependence. He will study the jumping behavior to see whether it is specific for the pure antagonists, to sensitize abstinent mice to naloxone-induced jumping by a single morphine injection, and to study strain differences in the mouse.

NARCOTIC BINDING TO SYNAPTOSOMAL PLASMA MEMBRANE

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F32 DA05029 1975-1978

This fellow is studying stereospecific binding (SSB) of narcotic analgesics to individual proteins in synaptosomal plasma membrane (SPM) of mice brains. The binding of such drugs to detergent-solubilized membrane proteins is being studied initially and primarily by polyacrylamide gel electrophoresis. The underlying hypothesis of this approach is that the narcotic receptor is a part of, or is otherwise related to, a protein species residing in the membrane.

The primary goal is to determine whether SSB of such narcotics can indeed be localized to a particular protein of SPM. A secondary goal is to gain greater familiarity with pharmacological methods.

Appropriate approaches to drug abuse depend on a knowledge of the biochemical mechanisms of such morphine analogs as heroin. Understanding of the way such drugs act in the brain will open new avenues of medical treatment for drug addicts.

METHADONE MAINTENANCE IN A CIVIL COMMITMENT SETTING

Fellow: Melvin Anglin, M.A.
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F32 DA05016 1975-1976

The sponsoring institution is currently conducting a large-scale evaluation of the California Civil Addict Program. This research allows the fellow to design and conduct a related project not currently included in the larger program. An important question in the area of narcotics dependence is whether or not the element of coercion increases the treatment retention rate. The research will explore this question with respect to civilly committed addicts who volunteer for methadone maintenance. The available data on some 1500 civilly committed addicts who have volunteered for methadone maintenance since 1970 provide the opportunity to derive some useful information. The research will consist of four approaches.

First, the population volunteering for maintenance will be compared with the remainder of the civil commitments from the standpoint of background and demographic variables, precommitment drug use and criminal history, and postcommitment parole and discharge history.

Second, the retention rates of the civilly committed addicts in methadone maintenance will be compared with that for the general population of methadone patients.

Third, a subsample of 200 civilly committed addicts who volunteer for maintenance will be examined in terms of parole performance prior and subsequent to initiation of maintenance.

Fourth, it is anticipated that approximately 100 of the individuals in the main followup study will have volunteered for maintenance during the course of their civil commitment. For these individuals, detailed data on drug use, employment, self-reported criminal behavior and arrest records will be available throughout the commitment period. These variables will be compared for maintenance and nonmaintenance periods.

DEPENDENCE, CELLULAR TRANSPORT AND BINDING OF NARCOTICS

Fellow: Fedor Medzihradsky, Ph.D.
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Addiction Research Foundation
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F32 DA05329 1975-1976

This fellow will study cytochemical changes in nervous tissue induced by pathogenesis and/or by CNS drugs. Of particular interest are interactions of the CNS drugs with cellular membranes and the evaluation of these processes as possible underlying mechanisms for the pharmacologic activity of drugs. In addition, he is interested in the possible effects of pathogenesis on these interactions. Little is known about the mechanisms by which drugs enter cells.

Previously, studies in this area have utilized cellular preparations from nervous tissue. This research correlates the cellular transport of narcotic drugs and the stereospecific binding of these compounds in cellular preparations from brains of rats previously pretreated to achieve the states of tolerance and dependence. The study yields information on the relationship between transport carriers for narcotic drugs and stereospecific receptors for these compounds.

PAVLOVIAN CONDITIONING OF DRUG REACTIONS IN THE CNS OF RATS

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F32 DA05030 1975-1977

This research attempts to bridge the gap between the neurophysiological mechanisms of morphine actions and the behavioral aspects of drug conditioning.

In his previous research project, the fellow used a rat preparation equipped for chronic recording of cortical and subcortical EEG and EKG and a jugular catheter for morphine administration. EKG and general behavior are recorded using a standard Pavlovian Conditioning Paradigm where morphine acts as the UCS and a tone pip the CS. With this model, the researchers have explored the cardiovascular and central nervous system in awake, freely moving, adult male rats surgically prepared with an implanted catheter in the external jugular vein together with chronic EKG electrodes sutured into the chest muscles and chronic EEG electrodes stereotoxically implanted into various subcortical and cortical structures considered to function as sites of morphine action.

The fellow is continuing this work in another laboratory where "unit" activity from neuronal populations can also be recorded in a freely moving rat. Because specific regions within the hypothalamus are extremely sensitive to small i.v. injections of morphine, the applicant is extending his previous studies to include the lateral hypothalamus and the ventromedial areas of the hypothalamus with the idea that morphine acting as an unconditioned stimulus can be conditioned to a previously neutral stimulus.

NEUROCHEMICAL CORRELATES OF NARCOTIC DRUG EFFECTS

Fellow: Robert Harris
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F22 DA02785 1974-1976

The interactions between narcotic drugs, synaptosomal membranes, and ionic binding and transport are of fundamental importance in understanding the neurochemical functioning of the nervous system. In addition, the development of narcotic tolerance and dependency may involve homeostatic mechanisms which are important in the normal functioning of the brain—hopefully, investigations of this nature will help elucidate these mechanisms.

This project determines the role of calcium in morphine analgesia, tolerance, and dependence. The fellow has data which support the concept that narcotic agonists and antagonists act through some alteration in calcium binding or calcium movement across neuronal membranes. Among other things, he

has found that ionic lanthanum is antinociceptive and potentiates morphine's antinociceptive effect; this effect is antagonized by calcium or naloxone; and this analgesic effect shows cross-tolerance with morphine. Lanthanum is a calcium antagonist with a high affinity for calcium binding sites, and it inhibits the efflux of calcium from brain slices.

The fellow is studying the acute and chronic administration of morphine on the binding of calcium to mouse brain synaptosomal factions, and the effects of morphine on uptake and release of ^{45}Ca by mouse brain synaptosomes. He is extending this model by studying the effects of other opiates, opiate antagonists, inorganic ions, cyclic AMP, theophylline, propranolol, phosophlipases, neuraminidase, and trypsin.

This project allows the fellow to continue his training with a laboratory group which is widely known for its work with narcotic drugs particularly the interdisciplinary search for biochemical, pharmacological, and neuroanatomical correlates of narcotic dependence.

CANADA

DRUG ABUSE AND DOPAMINERGIC NEURONAL MECHANISM

Fellow: Stuart Berney, Ph.D.
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F22 DA00281 1974-1977

This fellow is studying the effects of morphine and related drugs such as methadone, pethidine, apormorphine, amphetamine, haloperidol and bulbocapnine, in turning behavior in rats that have had lesions. Previous efforts have suggested that morphine and methadone produce ipsilateral turning in rats with nigral striatal lesions in a manner similar to that produced by amphetamine.

To gain additional insight into the problem, the fellow will stimulate the caudate and substantia nigra electrically as well as other extrapyramidal areas and use microinjections of morphine, etc., into various brain loci. In addition, a study will be made of various inhibitors of biogenic amine synthesis on these behaviors through biochemical analyses. Another experiment proposed will determine whether rats will self-administer narcotics to various brain regions.

DISTRICT OF COLUMBIA

EFFECTS OF ABUSED DRUGS ON COMPLEX BEHAVIORAL CHAINS

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F32 DA05014 1975-1976

Differential sensitivity to drugs between the performance and acquisition of behavioral chains has been demonstrated. The present experiment entails the simultaneous investigation of performance and learning in a single organism. The construction of a multioperant response repertoire permits the simultaneous and continuous sampling of both routine performance and of complex relearning processes. The effects of cocaine, THC, and, to a lesser extent, amphetamine on such repertoires is largely unknown. The significance of this study lies in two areas: first it represents a methodological development whereby these complex behavioral repertoires are studied within a single organism within a single session; second, this baseline will permit the detailed evaluation of three abused drugs 9-tetrahydrocannabinol, cocaine, and *d*-amphetamine in terms of their effects upon complex behavior.

GEORGIA

DISCRIMINATIVE EFFECTS OF NARCOTIC ANALGESIC DRUGS

Fellow: Gerald Schaeffer, Ph.D.
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Division of Basic Health Sciences

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F32 DA05020 1975-1977

This fellow states that all narcotic analgesics show a similar spectrum of action in man. He is interested in the reciprocal effects of various behavioral manipulations on the putative central nervous system neurotransmitters (serotonin, norepinephrine, and dopamine) and the modifications in behavior resulting from altering these systems. He is using various centrally acting drugs as research "tools", and developing animal models to study the relationships between the neurotransmitter systems and behavior.

His general approach involves the systematic evaluation of drugs and the behavior controlled by them. This research is based on the hypothesis that the discriminability of centrally acting drugs is positively correlated with their potential for abuse. By working in an academic setting, he has access to facilities that stress an interdisciplinary approach toward answering functional brain-behavior questions.

ILLINOIS

A STRUCTURAL STUDY OF CHANGE–GROUPS: DRUG ABUSE, PSYCHOTHERAPY, AND CONSCIOUSNESS-RAISING

Fellow: Gary Bond, Ph.D.
Sponsor: Dr. Morton Lieberman, Ph.D.
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University of Chicago
Department of Behavioral Science
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Chicago, Illinois 60649
(312) 753-3864
F22 DA00791 1975-1977

The major focus of this research is the expansion of the fellow's skills in the clinical research area. He is conducting a "Structural Study of Change Groups: Drug Abuse, Psychotherapy, and Consciousness-Raising." While the groups vary in regard to structure, format, and constitution, the fundamental assumption of the study is that all therapy groups direct a good deal of attention to the relief of psychological misery. The study utilizes a comparative analysis to get a general framework which will contribute to an understanding of how group-based activities can be used for the modification of behavior and relief from psychological suffering.

IOWA

ROLE OF RNA AND PROTEIN METABOLISM IN ADDICTION

Fellow: James Ramsey, Ph.D.
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F22 DA00857 1974-1975

This fellow attempted to elucidate information which would lead to an understanding of the participation of RNA and protein synthesis or turnover in the mechanisms underlying development of tolerance to the analgesic action of narcotics and the physical dependence on narcotics.

Two questions were posed:

1. Do changes in protein and RNA synthesis turnover or accumulation occur in specific brain regions at any time following acute and chronic administration of morphine; and
2. If changes do occur, can these changes be correlated with the effect of morphine on the development of tolerance to morphine analgesia?

MARYLAND

AGONIST AND ANTAGONIST STATES OF THE OPERANT RECEPTOR

Fellow: Leonard Murrin, Ph.D.
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F32 DA05326 1975-1977

The Johns Hopkins University laboratory in which the fellow is conducting this research is active in studies on the nature of the binding properties of various narcotic agents as a function of their pharmacological action. Methods are currently under development which may characterize drugs having agonist properties, antagonist properties, or a mixture of both properties. Because it is thought that drugs having pure antagonist properties might be valuable in the treatment of addiction with heroin, a search for molecular structures which will provide these unique properties is of considerable significance for additional methadone-type therapy.

The fellow is examining the effects of sodium and other ions on the binding of opiate agonists and antagonists in greater detail, hoping to elucidate in this way the manner by which these drugs interact with the opiate receptor. The initial studies focus on the kinetics of receptor binding and the effect of sodium thereon. He expects to evaluate association and dissociation rates of several tritiated agonists and antagonists at a variety of temperatures and pH's and in the presence of widely varying concentrations of monovalent and divalent cations.

OPIATE, LSD AND 5HT BINDING IN GUINEA PIG ILEUM

Fellow: Ian Creese, Ph.D.
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Department of Pharmacology & Psychiatry
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F32 DA05328 1975-1977

This feilow is conducting an experimental investigation of the modes of action of psychoactive drugs. By comparing the relationship between the *in-vitro* binding affinities and *in-vivo* pharmacological effects on guinea pig ileum preparation, he hopes to determine the relationship of opiate and serotonin action on this assay system and see whether or not any parallelism exists. A variety of protein-modifying reagents will also be studied with respect to their effect on binding.

OPIATE RECEPTOR BINDING

Fellow: Candace Pert, Ph.D.
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The Johns Hopkins School of Medicine
Department of Pharmacology & Psychiatry
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(301) 955-3082
F32 DA02097 1974-1976

This project examines the effect of sodium and other ions on the binding of opiate agonists and antagonists in greater detail. It is hoped that the examination will elucidate the ways in which those drugs interact with the opiate receptor. By examining a wide range of drugs provided by various pharmaceutical concerns as well as by medicinal chemists, the identification of drugs with therapeutic or theoretical significance may be possible.

Initial studies have focused upon the kinetics of receptor binding. Preliminary data indicate that the rate constant for association of tritiated agonists and antagonists is unaffected by the presence of sodium. However, the rate of dissociation of tritium-labeled agonists is greatly accelerated by sodium. In order to characterize the effects of sodium this fellow is evaluating association and dissociation rates at a variety of temperatures and pH's in the presence of widely varying concentrations of sodium, lithium, potassium, rubidium, and various divalent cations.

Studies are being performed to determine whether sodium elicits cooperative effects in opiate agonists' or antagonists' interactions with the receptor.

MASSACHUSETTS

THE EFFECTS OF DRUGS ON COMPLEX OPERANT BEHAVIOR

Fellow: Alfred Bacotti, Ph.D.
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F32 DA05330 1975-1977

While the success of operant methodology in analyzing drug effects has been amply demonstrated with the use of particular schedules studied in

isolation, little research has been done on complex patterns of responding maintained simultaneously by two or more different reinforcement schedules (concurrent schedules). The significance of concurrent schedules lies in the fact that a general account of behavior must consider situations in which more than one behavior and more than one contingency are available to the organism. Since human behavior is characterized by the simultaneous operation of contingencies for many different behaviors, an adequate experimental account of the effects of drugs on behavior must deal with concurrent schedules. In all experimental situations, behaviors other than those recorded may occur and be subject to contingencies other than those programmed by the experiment. It is important to employ a methodology that incorporates not only a sensitive measure of drug effects on a single behavior, but also on the interaction between behaviors and contingencies, as in concurrent schedules. Additionally, behavior under concurrent control is more sensitive to some variables, such as reinforcement magnitude, and some drug effects other than behavior controlled by schedules in isolation.

While numerous investigators have studied the effects of drugs on response rates controlled by single or multiple schedules of reinforcement, practically nothing is known about the effects of drugs on response rates under concurrent schedules of reinforcement. This fellow is employing concurrent fixed-ratio, variable-interval schedules of reinforcement with squirrels, monkeys, and pigeons and investigating the effects of amphetamine, cocaine, ethanol, imipramine, and chlorpromazine on responding in this situation, with particular reference to "matching" (distribution of responses and time between schedules equals the distribution of reinforcements), "bias" (a systematic preference for one schedule), and frequencies of changeover responses ("choice" behavior). He is also investigating the effects of the drugs mentioned and of "narcotics and narcotic antagonists" on the behavior controlled by concurrent response-dependent and response-independent reinforcements. In addition, if time permits, he will study the effects of drugs on behavior maintained by response-contingent electric shocks.

DRUG ABUSE: BEHAVIOR, BIOLOGY AND BIOCHEMISTRY

Fellow: Barbara Lex, Ph.D.
Sponsor: Roger Meyer, M.D., Director, Harvard-Boston University Center for Behavioral Studies in the Addictions
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F32 DA02555 1975-1976

This fellow is affiliated with the Center for Biobehavior Studies of the Addictions, McLean Hospital, Belmont, Massachusetts. The research is implemented in three interrelated phases.

In the first phase, the fellow participates in and explores the many perspectives on drug use currently represented at the center. These perspectives range across several disciplines dealing with the mind and body and include some course audits as well as laboratory work.

The second phase involves a study in the Drug Addiction Research Ward where a number of young white addicts are involved in a heroin self-administration study. Proposed ethnographic methods will be used to study life on the ward from the patient's point of view, the relationship between rules for appropriate behavior brought in from the street and those that emerge and are negotitated among the ward population.

Phase three will begin with a description of the findings. These findings will then be articulated with other disciplinary perspectives. Comparative observations will also be conducted in a methadone clinic and drug-free center.

MICHIGAN

PEER GROUP DISCUSSION AND THE PREVENTION OF DRUG ABUSE

Fellow: Daniel Madsen, Ph.D.
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F32 DA05019 1975-1977

This research examines the role of peer group influence in the development and change of drug

attitudes and behaviors. Peer group influence is widely acknowledged as a factor in the etiology of drug abuse. Recently developed group discussion models and techniques allow for employing peer influence to produce anti-abusive drug attitudes and behaviors.

Using college freshmen and sophomores as subjects, the research tests four hypotheses. The first hypothesis is that group discussions produce immediate anti-abuse changes in drug attitudes. The second is that group discussions produce long term, anti-abuse changes in both drug attitudes and drug usage. The third is that group discussion by living unit peers produces larger immediate and long-term changes than discussions by unacquainted age mates. The fourth hypothesis is that peer group discussions produce larger immediate and long-term changes when the discussion topics are selected for the particular group than when the topics are selected on an independent standard basis. Additional analyses test for any differential effectiveness of the group discussions as a function of individuals' type of residence, drug usage history, current level of drug use, and other characteristics.

MINNESOTA

BEHAVIORAL EFFECTS OF CHRONIC MORPHINE ADMINISTRATION

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F31 DA05028 1975-1976

This training research project is investigating some of the variables controlling the behavioral effects of morphine dependence and abstinence.

More specifically, the project examines the following:

1. Are increases in the rate of punished responding during morphine withdrawal due to some property of the punishment situation or to the low rates of the prewithdrawal punished responding?

An operant schedule of punished and nonpunished behaviors occurring at low rates provides a stable, sensitive behavioral baseline for the examination of this problem. A multiple [tandem VI DRL (no punishment)] [VI (punishment)] schedule of food reinforcement is used to generate comparable low rates of punished and nonpunished lever-pressing in food-deprived male albino rats. The following variables are being examined:

a. The effects of acute morphine administration on response rate and patterning
b. The development of behavioral tolerance, as measured by the return of response rate and patterning to predrug levels under a schedule of increasing doses of chronically administered morphine
c. The dose-dependent effects of acute naloxone administration on response rate and patterning.

The results of this study clarify the specific variables controlling increases in the rate of punished responding during morphine withdrawal and provide more general information about the effects of withdrawal on operant behaviors controlled by different environmental events.

2. Are the effects of morphine dependence and abstinence similar across different classes of behavior?

The behavioral phenomenon of schedule-induced behavior is used to investigate this question. Food deprived animals reinforced with food on a number of schedules develop interpellet activities which are not related by programmed or adventitious contingencies to the delivery of food (Falk, 1971). The baseline rates of such schedule-induced behaviors may be measured concurrently with the rates of food-reinforced behaviors in order to create a multiple behavioral baseline which may be used to study the effects of various drugs on two or more different classes of behavior.

A fixed interval schedule of food reinforcement is used to establish baselines of food-reinforced key-pecking and schedule-induced attack in food-deprived White Carneaus pigeons. The following variables are being examined:

a. The effects of chronic morphine administration on the relative rates of the two classes of behavior
b. The effects of naloxone-precipitated withdrawal on the relative rates and patterning of the two behaviors

The results of this study demonstrate similarities and differences in the effects of morphine dependence and abstinence on the rates and temporal patterning of two different classes of behavior, and they outline the first steps in a functional analysis of

the variables controlling a differential response to morphine dependence.

PHARMACODYNAMIC INTERACTIONS OF DIAZEPAM AND METHADONE

Fellow: Theodore Spaulding, Ph.D.
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F22 DA00835 1974-1975

This project studied the effects of diazepam on the metabolism of methadone by liver microsomal preparations from both normal rats and those dependent on methadone. Since the pathway of diazepam metabolism differs in various species, other species were also studied. A pharmacokinetic study was undertaken to determine the effect of diazepam on the plasma disappearance of methadone and the distribution of methadone.

MISSOURI

DRUG USE EFFECTS ON PREGNANT WOMEN AND THEIR NEONATES

Fellow: Patricia West, Ph.D.
Sponsor: James Halikas, M.D., Assistant Professor of Psychiatry
Department of Psychiatry
School of Medicine
Washington University
St. Louis, Missouri 63110
(314) 821-1578
F22 DA00344 1975-1978

The fellow is studying the effects of drug usage upon pregnant women and their neonates, obtaining detailed history data concerning drug use and social background from 400 women giving birth in a local hospital (the Maternity Hospital of Washington University's School of Medicine). The fellow is obtaining the history of drug use before and during pregnancy, looking for individuals who began use during pregnancy and comparing them to those who had drug use only before pregnancy and those who used drug throughout both periods. Her interests focus on a wide range of psychoactive drugs, including both those prescribed by the obstetrician and those obtained illicitly, in evaluating the impact of drugs on the neonate as judged by hospital data on the baby's adjustment, functioning, etc.

NEW YORK

AMPHETAMINE: NEUROANATOMICAL SITES OF ITS ACTION

Fellow: Edwin Goodall, Ph.D.
Sponsor: Robert Carey, Ph.D., Staff Research Psychologist
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V.A. Hospital
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F22 DA05004 1975-1976

An important perspective for interpreting disturbances in brain function produced by injury or pharmacological manipulation is in terms of alterations in putative neuro-transmitter substances in the brain. In accordance with this conceptualization, this fellow is receiving training in neuroanatomical, pharmacological, and behavioral techniques appropriate for relating brain catecholamine systems to behavior. Primarily, the training enables the applicant to perform regional assays of brain tissue for catecholamine content using fluorometric procedures. In addition, training is received in surgical procedures, which allows for the acute and chronic administration of drugs by the intraventricular and intracerebral routes in order to circumvent the blood-brain barrier and to permit a drug treatment to be restricted to a specific brain region. Training, however, is not limited to techniques but is aimed at encouraging the development of a more comprehensive and critical understanding of neuro and behavioral pharmacology through readings, discussions, and relevant lectures.

TROPHIC DISTURBANCES INDUCED BY OPIODS

Fellow: Ferdinand Hui, Ph.D.
Sponsor: Alfred Smith, M.D., Associate Professor of Psychiatry

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(212) 876-5500 Ext. 521
F22 DA01594 1974-1977

This fellow will study the influence of cholinolytic drugs on nerve-dependent structures in both mature and in developing animals. Regeneration studies will be carried out mainly in the salamander but some regeneration was also studied in neonatal mice, using opiods. Blockers of acetylcholine synthesis are ordinarily lethal to animals dependent on mechanical respiration, but in moderate dosages, opiods are not. This work helps determine the importance of acetylcholine in neurotropic regulation. Perhaps of more immediate concern, it will add to fundamental and practical knowledge of the effects of chronic opiod treatment on animal tissues. The fellow will gain useful experience in an important area of narcotic research which correlates with other studies of ACh levels in affected tissues as determined by gas chromatography.

PENNSYLVANIA

MORPHINE: ELECTROPHYSIOLOGY AND BEHAVIOR

Fellow: Richard Friedman, M.A.
Sponsor: Alan Freeman, Ph.D., Professor and Chairman, Department of Physiology
Temple University School of Medicine
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Philadelphia, Pennsylvania 19140
(215) 221-3273
F31 DA05022 1975-1977

This fellow is studying the mechanism of action of neuropharmacological agents, specifically the action of morphine, on putative amino acid neurotransmitters. Pharmacological and behavioral studies are used to establish the most propitious time for applying electrophysiological techniques to evaluate morphine's effects at the myoneural junction of the lobster's walking limb. Because conduction at this junction involves putative amino acid neurotransmitters, and because it is possible to isolate single excitatory and inhibitory axons in this preparation, it should be possible to examine morphine's effects on amino acid mediated transmission without the complications involved in recording from the central nervous system.

UPTAKE AND METABOLISM OF NARCOTIC DRUGS BY THE LUNG (TISSUE)

Fellow: Christina Chi, Ph.D.
Sponsor: B. N. Dixit, Ph.D., Chairman and Associate Professor
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University of Pittsburgh
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(412) 624-3275
F22 DA02471 1974-1976

The emphasis here is on teaching practicing physicians the pharmacology of alcohol and narcotics as well as re assessment of the prescription writing practices which lead to further complications in drug abusing patients. A second curriculum is the specific education of pharmacy students in a medical clerkship environment concerning drug abuse and alcohol related problems. Of special note is a section for dealing with pharmacy practices that complicate or exacerbate drug abuse problems.

In conjunction with the Santa Cruz Extension Division of the University of California a controlled study of educational practices of health professionals (in the drug abuse and alcohol area) has been prepared. Also, in conjunction with San Francisco State College, a curriculum is being planned for interested law students. Finally, the drug information services and poison control centers in the San Francisco Bay Area will be organized so that the special expertise in clinical pharmacology related to drug abuse, alcoholism, and poisoning can be given upon referral.

A journal club and newsletter are proposed for discussion and publication of followup data.

DISCRIMINATIVE AND ANALGESIC MORPHINE EFFECTS

Fellow: Edward Krimmer, Ph.D.
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University of Pittsburgh
Desoto & Terrace Streets
Pittsburgh, Pennsylvania 15261

(412) 624-3283
F22 DA02376 1974-1976

This program studies the effects of intravenously administered morphine as a discriminative stimulus. Morphine or saline is injected into a rat just prior to its placement into a T-maze with an electrified grid floor. The animal is able to escape from the electric shock by running to the appropriate side of the maze, depending on the solution (drug or saline) administered. Four trials, separated by 1-hour intervals, are conducted daily. Intensities of electric shock vary, and electric shock avoidance is studied in some of the animals. In some experiments, hypotensive agents and histamine releasers are studied as controls for the peripheral effects of morphine.

TENNESSEE

EFFECTS OF MORPHINE ON BRAIN ACETYLCHOLINE

Fellow: Michael Vasko, Ph.D.
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Nashville, Tennessee 37203
(615) 741-7431
F32 DA05018 1975-1978

The fellow states that in addition to his interest in the area of drug abuse he is also interested in the area of drug treatment in mental illness. Because of improved methodology, his interest in the role of the putative neurotransmitters in morphine pharmacology, and evidence that these neurohumors interact in many regional locations in the brain, he is studying the effects of morphine on ACh and its relation to other transmitters. Three main approaches are utilized.

The first is to measure the changes in ACh in the CNS induced by the drug. The second is to change the functional state of the cholinergic system and observe what these changes do to morphine's effects on motor activity. The third approach involves the use of agents to manipulate one transmitter system (DA, NE, 5-HT) and look for any changes in morphine's effects on another system (ACh). The rationale behind the first two is to measure morphine effects on brain ACh and correlate those effects with simple drug-induced behavior. The third approach helps resolve the question of whether the morphine effect is on ACh directly or is mediated by DA, 5-HT, or NE.

The goals of the research are:

1. To assess the effects of acute and chronic morphine on ACh release and turnover in various regions of the brain
2. To determine whether the effects of morphine on the central cholinergic system are direct or whether they are mediated by other neurotransmitters
3. To attempt to correlate biphasic effects on ACh with the biphasic effects of morphine on locomotor activity

TEXAS

STRESS CORRELATES OF DRUG ABUSE

Fellow: David McLendon, Ph.D.
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Baylor College of Medicine
1200 Moursund Avenue
Houston, Texas 77025
(713) 790-4644
F22 DA01667 1974-1976

This fellow is studying the interaction between behaviorally induced physiological stress and drug self-administration. Behavioral conditioning procedures (e.g., shock avoidance) have been established with Rhesus monkeys and measurements made of hormonal (17-OH-CS) and cardiovascular (blood pressure) changes. The extent to which such interactions potentiate drug self-administration (e.g., cocaine, 9-THC, etc.) are being studied. In the process of pursuing these studies the fellow is acquiring skill and experience with surgical and physiological recording procedures as well as enhancing his contact with the pharmacology of drug self-administration methodology.

VIRGINIA

MORPHINE TOLERANCE TRANSFER AND SYNAPTIC ACTIVITY

Fellow: Kenneth Johnson, Ph.D.
Sponsor: William Dewey, Ph.D., Associate Professor of Pharmacology
Medical College of Virginia
Virginia Commonwealth University
Department of Pharmacology
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(804) 770-4684
F32 DA05012 1975-1976

This study will examine the possibility that alterations of neurotransmitter activity, particularly serotonergic activity, can modify an immune or memory-like response reported to occur after chronic morphine injections. The fellow intends to repeat the original experiments demonstrating the transfer of morphine tolerance and then to determine the 5-HT turnover rates in tolerant and nontolerant donor rats. He will then attempt to modulate the transfer factor by pharmacologically manipulating serotonergic activity, beta-adrenergic receptor activity, cyclic-AMP levels and protein synthesis in donor animals.

SELECTIVE MODULATION OF NARCOTIC SELF-ADMINISTRATION

Fellow: John Carney, Ph.D.
Sponsor: Robert Balster, Ph.D., Assistant Professor
Department of Pharmacology
Medical College of Virginia
Virginia Commonwealth University
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(804) 770-4091
F32 DA05017 1975-1977

The fellow has previously engaged in studies of the effects of narcotic and narcotic antagonists on the operant behavior of rhesus monkeys maintained by food presentation or drug injections. He is continuing this line of work at the Medical College of Virginia at Richmond.

Rhesus monkeys are being trained under chained schedules in which a response results in food presentation or i.v. morphine injection. He is studying the effects of pretreatment with drugs of several different classes on behavior maintained by each type of event. Drugs include psychosomatic stimulants, 5HT depletors, major tranquilizers, MAO inhibitors, narcotics, and narcotic antagonists. He also is studying changes in amine levels of blood platelets from the monkeys.

ACETYLCHOLINE-INDUCED ANTINOCICEPTION

Fellow: Norman Pedigo, B.S.
Sponsor: William Dewey, Ph.D., Associate Professor of Pharmacology
Medical College of Virginia
Virginia Commonwealth University
Department of Pharmacology
Richmond, Virginia 23298
(804) 770-4691
F31 DA05025 1975-1977

The general topic of this research is the role of acetylcholine in blocking a pain impulse. The fellow is investigating the antinociceptive activity of intraventricularly administered ACh. Two important areas which deserve immediate consideration are the interrelationships of other neurotransmitter systems with the antinociceptive action of acetylcholine and the possible importance of species variation. Preliminary studies have shown that reserpine (5 mg/kp, i.p.; 17 hours prior) will drastically reduce the antinociceptive activity of intraventricular (ivt.) ACh. Pretreatment with drugs which selectively reduce noradrenergic, dopaminergic, or serotonergic tone will greatly extend these observations. Methods of ivt. injection in young and adult rats have been described and are being utilized to further substantiate the phenomenon of ACh-induced antinociception.

The research training comprises a continuation of the fellow's work on the antinociceptive activity of acetylcholine. He is extending his animal research to include rats and is perfecting the technique of administered drugs into lateral ventricles of these animals. He is being trained to measure endogenous levels and turnover rates of norepinephrine, dopamine, serotonin, and hopefully, acetylcholine. The methods for measuring norepinephrine, dopamine, and serotonin levels and turnover rates are being used in the laboratories of the Virginia Commonwealth University Medical College at the present time. The research is one phase of an overall program exploring the neurochemical mechanisms of narcotic analgesics and antagonists.

DRUGS OF ABUSE AND BRAIN CATECHOLAMINES

Fellow: Dr. Alan Bloom
Sponsor: W. L. Dewey, Ph.D., Associate Professor of Pharmacology
Medical College of Virginia
Department of Pharmacology
Virginia Commonwealth University
Richmond, Virginia 23298
(804) 770-4677
F32 DA05008 1975-1976

This study involves the effects of narcotics, narcotic antagonists and mixed antagonist-agonists on catecholamine functions in the central nervous system. Although considerable work has been done along these lines in this and other laboratories, this study is considered to be unique, since the fellow will look at catecholamines while other members of the laboratory will be investigating the effects of the same drugs on turnover rates of serotonin and acetylcholine. The techniques have been worked out and the fellow's prior experience makes him especially qualified to carry out the studies. The studies will be conducted by investigating these effects with doses and at times when the compounds show little or no analgesic activity.

The fellow has already shown that several narcotic-like compounds having different chemical structures all produce similar increases in brain-catecholamine synthesis rates when given in equally analgesic doses; while other compounds with similar chemical structure, but which are inactive in the tail-flick tests, did not increase catecholamine synthesis. He will study the relationship between synthesis rates and analgesia over a wide series of compounds in order to obtain a comprehensive picture of catecholamine function.

He believes that the study should provide a significant contribution to the understanding of the pharmacology of drugs which produce antinociception in animals. All the biochemical and enzymatic methods have been worked out. Implantation techniques will be used to study the various agonists.

POSTDOCTORAL TRAINING IN PHARMACOLOGY OF ABUSED DRUGS

Institutional Award
Sponsors: William L. Dewey, Ph.D., Associate Professor
Louis S. Harris, Ph.D., Professor and Chairman
Department of Pharmacology
Health and Science Division
Medical College of Virginia
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Richmond, Virginia 23298
(804) 770-4677
T22 DA00128 1974-1975

Trainees in this program are conducting research under the supervision of a pharmacology faculty member working in behavioral, neurochemical and physiological aspects of the pharmacology of abused drugs. Although each trainee works predominantly with one of seven possible preceptors, cross-disciplinary research is also encouraged. The trainees have the opportunity to work and study under the direction of an esteemed organic chemist.

Ongoing research areas available to the trainees include the study of addiction potential of compounds in a colony of morphine-dependent monkeys, opiate dependence in mice and rats, drug behavior interactions, state-dependent learning, intravenous drug self-administration in rhesus monkeys, neurochemical correlates of learned behavior, and effects of acute and chronic administration of drugs on a variety of subcellular neurochemical systems. The trainees also have a number of seminars, advanced courses in pharmacology, and other basic science and medical disciplines available to them.

INDEX I

DRUG ABUSE GRANTS BY STATE

State	Program	Page
Alabama		
Auburn	Training Personnel for Drug Abuse Screening Program	9
Birmingham	Career Teacher: Claudio Toro, M.D.	47
Tuskegee	Drug Abuse Human Services Manpower Development	10
Tuskegee	Career Teacher: Ruffer Johnson, MSW	9
Arizona		
Tucson	Counselor for the Drug Abuser	10
Tucson	Training Program for Drug Prevention Paraprofessionals	10
Tucson	Career Teacher: Kenneth Russell, Ed.D.	47
California		
Berkeley	Youth Involvement, Alienation, and Drug Abuse	11
Berkeley	Culture, Learning, and Individual Drug Response	59
Irvine	Career Teacher: Roland Atkinson	47
La Jolla	UCSD Drug Abuse Training Program	11
La Jolla	Reward Effects of Opiates: Neural Substates	59
La Jolla	Biochemical Correlates to Drug Induced Internal Stimuli	59
Los Angeles	Training Drug Rehabilitation Counselors	11
Los Angeles	Methadone Maintenance in a Civil Commitment Setting	61
Los Angeles	Training in the Psychology of Drug Abuse	12
Los Angeles	NIMH Comprehensive Drug Training Center at UCLA	12
Los Angeles	New Careers in Community Mental Health	13
Los Angeles	Social Work Training Project Drug Addiction and Abuse	13
Los Angeles	Training Paraprofessionals for Drug Abuse Programs	14
Los Angeles	Adolescent Drug Abuse Prevention Program	14
Los Angeles	Westland Substance Abuse Training for Professionals	
Los Angeles	Immune Assay of the Levels in Body Fluids of Rats	
Richmond	Training for Drug Treatment Workers	15
San Diego	Training of Rehabilitation Counselors in Drug Abuse	15
San Francisco	Training Ethnic Youth as Drug Abuse Counselors	16
San Francisco	Undergraduate Training for Drug Abuse Counselors	16
San Francisco	Neurochemical Aspects of Drug Tolerance and Dependence	17
San Francisco	An Experimental Model of Protracted Physical Dependence	60
San Francisco	Narcotic Binding to Synaptosomal Plasma Membrane	61
San Francisco	Neurochemical Correlates of Narcotic Drug Effects	62
Palo Alto	Dependence, Cellular Transport and Binding of Narcotics	62
Pasadena	Pavlovian Conditioning of Drug Reactions in the CNS of Rats	62
Stockton	Institute on Substance Abuse Staff Training Project	17
Canada		
Toronto	Drug Abuse and Dopaminergic Neuronal Mechanism	63
Colorado		
Denver	Drug Abuse and Alcoholism	18
Connecticut		
Meriden	Connecticut Clinical Training Center	18
Westport	Training Professionals for Drug Treatment Programs	18

State	Program	Page
District of Columbia		
Washington	Drug Abuse Counseling	19
Washington	Fides House Drug Abuse Education Program	19
Washington	National Drug Abuse Personnel Selection Data System	20
Washington	National Institute for Drug Programs	20
Washington	Career Teacher: Alyce Gullattee, M.D.	48
Washington	Effects of Abused Drugs on Complex Behavioral Chains	63
Florida		
Miami	Counselor for Dependency Disorders/A.A. Level	20
Miami	Master of Science in Human Resources	21
Miami	Undergraduate Training for Drug Abuse Counselors	21
Georgia		
Atlanta	Drug Research and Treatment Management Traineeship	22
Atlanta	Undergraduate Training for Drug Abuse Counselors	22
Atlanta	Career Teacher: John Griffin, M.D.	48
Atlanta	Discriminative Effects of Narcotic Analgesic Drugs	63
Idaho		
Pocatello	Southeastern Idaho Drug Education Program	23
Illinois		
Chicago	Inservice Training for Drug Abuse Counselors	23
Chicago	A Structural Study of Change – Groups: Drug Abuse, Psychotherapy, and Consciousness-Raising	64
Peoria	Career Teacher: Andre Ho, Ph.	49
Iowa		
Iowa City	Training Drug Abuse Counseling Specialists	24
Iowa City	Role of RNA and Protein Metabolism in Addiction	64
Kansas		
Kansas City	Career Teacher: Robert Rhodes, Ph.D.	49
Kentucky		
Lexington	Social Research Training in Drug Abuse	24
Louisiana		
New Orleans	Training Program for the Control of Drug Aubse	25
New Orleans	Training in Drug Program Administration	25
Maryland		
Baltimore	Training Mental Health Associates as Drug Counselors	26
Baltimore	Multi-Strategy Training Program in Drug Addiction	26
Baltimore	Agonist and Antagonist States of the Operant Receptor	64
Baltimore	Opiate, LSD, 5HT Binding in Guinea Pig Ileum	65
Baltimore	Opiate Receptor Binding	
Massachusetts		
Belmont	Drug Abuse: Behavior, Biology and Biochemistry	66
Belmont	Clergy Training in Drug Abuse	29
Boston	Drug Abuse Interdisciplinary Training Program	27
Boston	Simmons Drug Training Program	27
Boston	Treatment of Drug Addiction	30
Boston	Clergy Training in Drug Use and Abuse	30
Boston	Project Place Statewide Crisis Intervention Training	31
Medford	In-service Inter-Disciplinary Training in Drug Abuse	28
Shrewsbury	The Effects of Drugs on Complex Operant Behavior	65
Michigan		
Ann Arbor	Peer Group Discussion and the Prevention of Drug Abuse	66
Detroit	Detroit Institute of Addiction Research and Training	31
Kalamazoo	Alcohol and Drug Addiction	32
Minnesota		
Minneapolis	Health Professionals Drug Abuse Education Project	32
Minneapolis	Chemical Dependency Counseling Program	33
Minneapolis	Career Teacher: Joseph Westermeyer, M.D.	50
Minneapolis	Behavioral Effects of Chronic Morphine Administration	67
Minneapolis	Pharmacodyne Interactions of Diazepam and Methadone	68
Mississippi	Career Teacher: Geary Alford, M.D.	50

74

State	Program	Page
Missouri		
St. Louis	Social Work Drug Abuse	33
St. Louis	Research Training Program	33
St. Louis	Social Work Training Program in Drug Abuse	34
St. Louis	Career Teacher: James Halikas, M.D.	51
St. Louis	Drug Use Effects on Pregnant Women and Their Neonates	68
New York		
Albany	Career Teacher: Jules Golden, M.D.	51
Bronx	Career Teacher: Marc Galanter, M.D.	52
Brooklyn	Career Teacher: Benjamin Kissin, M.D.	51
Manhasset	Drug Abuse Training Project	35
New York	National Committee on Employment of Youth	34
New York	Harlem Addiction and Rehabilitation Training Program	35
New York	Training in Drug Use, Abuse, Dependence, Treatment	36
New York	Bilingual-Bicultural Drug Training Program	36
New York	Master of Science in Research on Social Problems	36
New York	Intervention with Drug Abusers-Cross Cultural, Cross Regional	37
New York	Social Work-Drug Abuse	37
New York	Trophic Disturbances Induced by Opiods	68
Rochester	Monroe County Community Organizers, Prevention and Information Program	37
Rochester	Career Teacher: John P. Morgan, M.D.	52
Stony Brook	Health and Related Professions in Narcotic Addiction and Drug Abuse	38
Syracuse	Amphetamine: Neuroanatomical Sites of its Action	68
North Carolina		
Durham	Professional Training in Drug Abuse	38
Ohio		
Cleveland	Community Drug Worker Training Program	38
Columbus	Hospital Drug Abuse, Treatment-Training Program	39
Pennsylvania		
Pittsburgh	Career Teacher: Kenneth Williams, M.D.	53
Pittsburgh	Uptake and Metabolism of Narcotic Drugs by the Lung (Tissue)	69
Pittsburgh	Discriminative and Analgesic Morphine Effects	69
Philadelphia	Comprehensive Training for Drug Treatment Services Program	39
Philadelphia	Addiction Science Training for Medical Students	40
Philadelphia	Continuing Education in Drug Abuse for Physicians	40
Philadelphia	Career Teacher: Sidney Schnoll, M.D.	53
Philadelphia	Morphine: Electrophysiology and Behavior	69
South Carolina		
Charleston	Career Teacher: Kim Keeley, M.D.	53
Tennessee		
Nashville	Effects of Morphine on Brain Acetylcholine	70
Texas		
El Paso	Chicano Drug Training Institute	41
El Paso	The Aliviane Training Institute	41
Galveston	Career Teacher: David Eiland, Jr., M.D.	55
Houston	Career Teacher: Joseph Schoolar, M.D.	54
Houston	Stress Correlates of Drug Abuse	70
San Antonio	Drug Abuse Education Project	41
San Antonio	Career Teacher: Kenneth Blum, Ph.D.	54
Virginia		
Richmond	Drug Abuse Prevention Training	42
Richmond	Morphine Tolerance Transfer and Synaptic Activity	71
Richmond	Selective Modulation of Narcotic Self Administration	71
Richmond	Acetylcholine – Induced Antinociception	71
Richmond	Drugs of Abuse and Brain Catecholamines	72
Richmond	Postdoctoral Training in Pharmacology of Abused Drugs	72

State	Program	Page
Washington		
Seattle	Training in Drug Abuse	43
Spokane	Human Services Training Institute	42
Wisconsin		
Madison	Training in Social Treatment of Drug Abusers	43
Madison	Career Teacher: Joseph Benforado, M.D.	55

76

INDEX II

DRUG ABUSE GRANTS BY INSTITUTION

State	Institution	Page
Alabama	Auburn University	9
	Tuskegee Institute	9, 10
	University of Alabama	47
Arizona	Pima Community College	10
	University of Arizona	10, 47
California	Addiction Research Foundation	62
	California Institute of Technology	62
	Haight Ashbury Training and Education Project	16
	John Hale - Bayview Community Mental Health Services	16
	L. A. Center for Group Psychotherapy	14
	San Diego State University	15
	San Joaquin County Office of Drug Abuse Coordination	17
	Suicide Prevention Center	11
	University of California	11, 12, 13, 17, 48, 59,60, 61, 62
	University of Southern California	14
	West Contra Costa Community Health Care Corporation	15
	Westland Health Services, Inc.	15
Canada	University of Toronto	63
Colorado	Metropolitan State College	18
Connecticut	Connecticut Alcohol and Drug Training Center	18
	Hall-Brooke Foundation, Inc.	18
District of Columbia	Fides Drug Abuse Education Education Program	19
	Georgetown University	63
	George Washington University	19
	Howard University	48
	NIDP Career Development Center	20
Florida	Biscayne College	21
	Florida Memorial College	21
	Miami-Dade Community College	21
Georgia	Emory University	48, 63
	Georgia State University	22
Georgia	Morehouse College	22
Idaho	Idaho Department of Health and Welfare	23
Illinois	Bethany Drug Awareness Program	23
	University of Chicago	64
	University of Illinois	49
Iowa	University of Iowa	24, 64
Kansas	University of Kansas	49
Kentucky	University of Kentucky	24
Louisiana	Southern University	25
	Tulane University	25
Maryland	Essex Community College	26
	Johns Hopkins	64, 65
	University of Maryland	26
Massachusetts	Adolescent Counseling in Development, Inc.	28
	Boston State Hospital	27
Massachusetts	McLean Hospital	29, 66
	Project Place	31
	Simmons College	28
	Washingtonian Center for Addictions	30
	Washington Hospital	30
	Worchester Foundation for Experimental Biology	65
Michigan	Detroit Institute of Addiction Research and Training	31

State	Institution	Page
	University of Michigan	66
	Western Michigan University	32
Minnesota	University of Minnesota	32, 33 50, 67, 68
Mississippi	University of Mississippi	50
Missouri	St. Louis University	34
	Washington University	33, 51, 68
New York	Albany Medical College	51
	Beth Israel Medical Center	36
	Bronx Municipal Hospital Center	52
New York	Fordham University	37
	Harlem Addiction and Rehabilitation	35
	Hunter College	36, 37
	Monroe County Community Organizers, Inc.	37
	National Committee on Employment of Youth	34
	National Puerto Rican Forum, Inc.	36
	New York Medical College	68
	North Shore Hospital	35
	State University of New York	38, 51
	V. A. Hospital	68
	University of Rochester	52
North Carolina	Duke University	38
Ohio	Case Western Reserve University	38
	Ohio Hospital Association	39
Pennsylvania	Institute of the Pennsylvania Hospital	40
	Medical College of Pennsylvania	40
	Philadelphia General Hospital	53
	Philadelphia Group Mental Health/Mental Retardation Associates, Inc.	39
	Temple University	69
	University of Pittsburgh	69
South Carolina	Medical University of South Carolina	53
Tennessee	Vanderbilt University	70
Texas	Aliviane, Inc.	41
	Baylor College	54, 70
	Our Lady of the Lake College	41
	University of Texas	54, 55
Virginia	Medical College of Virginia	71, 72
	Virginia Commonwealth University	42, 71
Washington	Spokane Regional Drug Abuse Training Center	42
	University of Washington	43
Wisconsin	University of Wisconsin	43

INDEX III

SUBJECT INDEXES

A separate subject index is provided for each of the three types of grant programs described in *Vanguards in Trainina*.

A table-form index is presented for the Career Teacher Award Grants section. This form will facilitate the finding of information by a variety of users, from those interested merely in a comparison of the award programs to medical and paramedical students and other health professionals and paraprofessionals interested in locating the kind of drug and alcohol abuse programs most suitable to their needs.

79

Developmental Training Grants

Administration, training in drug program, 25-26, 36
Adolescent drug abuse prevention, 14-15
Alcoholism training program, 18, 26, 36
Alternatives to drug use, 23, 37-38
Clergy training, 14-15, 15, 27, 29-30, 30-31, 38
Clinical training for Connecticut drug workers, 18
Comprehensive drug training, 12-13
Continuing education in drug abuse (for physicians), 40-41
See also Inservice training programs
Counseling (adolsecent) training programs, 28, 38-39
Counseling (drug abuse), inservice training, 23-24
Counseling (drug abuser), 10, 19, 20-21, 21-22, 22-23, 23-24, 24, 26, 38-39, 42-43
Counseling (drug-offense probationers), training programs, 38-39
Counselor (alcoholism), 18, 26, 32-33
Counselor training (drug abuse, drug rehabilitation), 11-12 15-16, 16, 16-17, 18, 18-19, 32-33, 33
Counselor training for ethnic youth, 16
Counselors, addiction rehabilitation, 15-16, 31-32
Counselors, ex-addict, 11-12, 18-19
Credentialing programs, 20
Drug abuse, emergency treatment, 32-33, 38, 39, 42-43
family counseling, 32-33
field instruction for social work students, 43
human services manpower development, 9
Drug abuse and alcoholism, 18, 26, 32
Drug abuse counseling, *see* Counseling (drug abuse)
Drug abuse intervention, cross-cultural, cross-regional programs, 37
Drug abuse prevention, training programs for school administrators and law enforcement personnel, 14-15, 15
Drug abuse prevention programs, 14-15, 37-38
Drug abuse screening programs, 9
Drug abuse training programs, 10, 11, 14, 14-15, 15, 19-20, 20, 25, 26, 27, 33, 38, 39-40, 40, 41, 41-42, 43
administrative, 33
bilingual-bicultural, 36, 41-42
Drug abuse training for medical students and physicians, 40, 40-41
Drug abuse training for professional status, 42
Drug abuse and youth involvement and alienation, 11
Drug addiction social work training, 13, 26-27, 36-37, 37, 42, 43
Drug addiction, research and training, 31-32, 33-34
Drug addiction, treatment, 30
Drug dependence, rehabilitation programs, 19, 35-36
Drug prevention training for paraprofessionals, 10-11, 14-15, 18-19
Drug tolerance and dependence, neurochemical aspects, 17
Dependency disorders, counselors for, 20-21
Dependency disorders, training programs, 12-13, 35, 36
Ex-addicts, training programs for, see Training eligibility levels (ex-addict)
Human services for drug abusers, training, 9, 42-43
Inservice training programs, 14-15, 17, 18, 18-19, 19-20, 20, 23-24, 25, 26-27, 27, 27-28, 28, 31-32, 32-33, 35-36, 36, 39-40, 41
Interdisciplinary training programs (drug abuse and community mental health), 27, 28, 30-31, 32, 33-34, 36, 38, 41-42, 42, 42-43
Interpersonal relationships in drug abuse treatment, 23
Management, *see* Administration
New careers for ex-addicts, 11-12, 13, 14, 18-19, 25, 33, 37-38
Nonprofessional status training programs, 14, 16, 17, 18, 19-20, 23, 23-24, 28, 30, 33, 37-38, 41
Paraprofessional status training programs, 9, 10-11, 11, 11-12, 12-13, 13, 14, 15, 17, 18, 18-19, 20, 20-21, 21, 26, 27, 29-30, 31-32, 35, 35-36, 38, 38-39, 39-40, 41, 41-42, 42, 42-43
Professional status training programs, 10, 11, 12, 12-13, 13, 14-15, 15, 15-16, 16-17, 17, 18, 19, 21-22, 22, 22-23, 23-24, 24, 24-25, 25, 25-26, 26-27, 27, 27-28, 30, 30-31, 31-32, 32-33, 33, 33-34, 35, 36, 36-37, 38, 39, 39-40, 40, 40-41, 41, 42-43, 43
Psychology in drug abuse, training in, 12
Rehabilitation, *see* Counselors, addiction rehabilitation; Counselor training (drug abuse, drug rehabilitation) Drug dependence, rehabilitation programs; Vocational rehabilitation
Research and treatment management traineeship, 22
Social research training in drug abuse, 24-25
Staff development, *see* Inservice training programs
Staff training in substance abuse, 17
Substance abuse, *see* Drug abuse, staff training in
Training eligibility levels, ex-addict, 11-12, 13, 14, 15, 18-19, 23-24, 25, 27, 33, 37-38
minority persons, 14, 15-16, 19-20, 20-21, 23, 23-24, 26-27, 36-37, 41, 41-42
nonprofessionals, 13, 17, 19-20, 20-21, 21, 23, 26, 28, 30
paraprofessionals (high school graduates), 9, 10-11, 11, 12-13, 13, 15, 18, 20-21, 23, 25, 35, 35-36, 38, 41, 41-42, 42-43
professionals (undergraduate and graduate), 9, 10, 11, 12-13, 13, 14-15, 15, 15-16, 16-17, 17, 18, 19, 21, 21-22, 22, 22-23, 23, 24-25, 25, 25-26, 26-27, 27, 27-28, 29-30, 30, 30-31, 31-32, 32, 32-33, 33, 33-34, 35, 36, 36-37, 37, 38, 38-39, 39, 39-40, 40, 40-41, 42, 42-43, 43
Vocational rehabilitation, training in, 26
Volunteers, training of, 28

Career Teacher Grants

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*
ALABAMA					
Claudio Toro, M.D. University of Alabama Birmingham	Baylor University Harvard Medical School Boston City Hospital	To develop a curriculum in addictive states	University of Alabama School of Medicine	Medical students; residents in psychiatry; other health professionals	1974-1977
Ruffer Johnson, M.S.W. Tuskegee Institute Tuskegee	Tulane University Department of Psychiatry	To develop course work and field placement experiences	Tuskegee University	Students in social sciences in Human Services	1974-1975
ARIZONA					
Kenneth Russell, Ed.D. University of Arizona Phoenix	University of Arizona Department of Pharmacology (self-training)	To train the career teacher as a coordinator of addiction education and treatment services	University of Arizona Medical College	Medical students; members of the staff; other Arizona health professionals	1974-1977
CALIFORNIA					
Roland Atkinson, M.D. University of California Irvine	Tutorial services of U.C. affiliates; special study visits to addiction programs throughout U.S.; local field work in service programs	To add instruction in addiction to training programs for physicians; to improve delivery systems; to research subjective effects of abused substances	University of California College of Medicine, Department of Psychiatry	Psychiatrists; other medical students; undergraduate students; practicing physicians, mental health professionals; graduate students in social sciences and psychobiology	1973-1976
DISTRICT OF COLUMBIA					
Alyce Gullattee, M.D. Howard University Washington, D.C.	Downstate Medical Center (Brooklyn); Eagleville Hospital (Eagleville, Pa.); Haight-Ashbury Program (San Francisco)	To further the development of the university's curriculum in drug addiction and alcohol abuse; to design an ongoing teaching model in addiction for a medical school training program	Howard University College of Medicine	Medical students	1974-1977

Career Teacher Grants

ing ded by	Goal(s) of training program	Institution(s) benefiting	Personnel benefiting	Term of grant	Page number
r University rd Medical School n City Hospital	To develop a curriculum in addictive states	University of Alabama School of Medicine	Medical students; residents in psychiatry; other health professionals	1974-1977	47
e University rtment of hiatry	To develop course work and field placement experiences	Tuskegee University	Students in social sciences in Human Services	1974-1975	9
sity of Arizona rtment of macology (self- ng)	To train the career teacher as a coordinator of addiction education and treatment services	University of Arizona Medical College	Medical students; members of the staff; other Arizona health professionals	1974-1977	47
al services of U.C. tes; special study to addiction oro- throughout U.S.; field work in e programs	To add instruction in addiction to training programs for physicians; to improve delivery systems; to research subjective effects of abused substances	University of California College of Medicine, Department of Psychiatry	Psychiatrists; other medical students; undergraduate students; practicing physicians, mental health professionals; graduate students in social sciences and psychobiology	1973-1976	47-48
cate Medical Center klyn); Eagleville tal (Eagleville, Pa.); t-Ashbury Program rancisco)	To further the development of the university's curriculum in drug addiction and alcohol abuse; to design an ongoing teaching model in addiction for a medical school training program	Howard University College of Medicine	Medical students	1974-1977	48-49

Career Teacher Grants (Cont'd)

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grants*
GEORGIA John Griffin, M.D. Emory University Atlanta	Emory University; Georgia Mental Health Institute	To initiate curriculum development and evaluation; to develop self-study modules	Emory University School of Medicine; Department of Pharmacology and Community Medicine; Department of Psychiatry	Medical students	1973-1976
ILLINOIS Andrew Ho, Ph.D. University of Illinois Peoria	New York Downstate Medical Center, Division of Alcohol and Drug Dependency; other alcoholism and drug dependency centers	To develop an elective curriculum for fourth-year medical students; establishing a consultation center and curriculums for nurses and paramedical personnel; establishing a curriculum for second- and third-year medical students	University of Illinois, Peoria School of Medicine	Medical students; nurses and paramedical personnel connected with the medical school	1974-1976
KANSAS Robert Rhodes, Ph.D. University of Kansas Kansas City	Career Teacher Training Center; Eagleville Hospital; University of Miami; Iowa, Nebraska, and Rutgers Schools of Alcohol Studies; participation in University of Missouri, Kansas City Branch drug abuse programs	To develop course materials, instruction, seminars, and plans in university's Department of Learning Resources; to coordinate new courses with department, schools, and committees in the Medical Center; to develop self-instruction courses on drug and alcohol abuse	University of Kansas Medical Center	Psychiatry residents; nurses; police; social workers; ecology students	1974-1977

Career Teacher Grants (Cont'd)

	Goal(s) of training program	Institution(s) benefiting	Personnel benefiting	Term of grants	Page number
versity; ental Health	To initiate curriculum development and evaluation; to develop self-study modules	Emory University School of Medicine; Department of Pharmacology and Community Medicine; Department of Psychiatry	Medical students	1973-1976	48
Downstate enter, Division l and Drug cy; other n and drug cy centers	To develop an elective curriculum for fourth-year medical students; establishing a consultation center and curriculums for nurses and paramedical personnel; establishing a curriculum for second- and third-year medical students	University of Illinois, Peoria School of Medicine	Medical students; nurses and paramedical personnel connected with the medical school	1974-1976	49
cher Training agleville University of wa, Nebraska, ers Schools of Studies; partici- University of Kansas City rug abuse	To develop course materials, instruction, seminars, and plans in university's Department of Learning Resources; to coordinate new courses with department, schools, and committees in the Medical Center; to develop self-instruction courses on drug and alcohol abuse	University of Kansas Medical Center	Psychiatry residents; nurses; police; social workers; ecology students	1974-1977	49-50

Career Teacher Grants (Cont'd)

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*
MINNESOTA Joseph Westermeyer, M.D. University of Minnesota Minneapolis	Various courses in graduate teaching, post-graduate education, social deviance, public aspects of alcohol and drug abuse	To develop an educational program in alcohol and drug abuse for the Medical School and a clinical program for University of Minnesota Hospitals	University of Minnesota Medical School; University of Minnesota Hospitals	Medical students and residents in family practice, medicine, pediatrics, and psychiatry	1973-1976
MISSISSIPPI Geary Alford, M.D. University of Mississippi Jackson	University of Mississippi School of Medicine: Baylor University; Eagleville Hospital and Rehabilation Center; V.A. Hospital	To develop educational, treatment, consultation, and research programs	University of Mississippi Medical Center	Medical students; other health professionals	1974-1976
MISSOURI James Halikas, M.D. Washington University St. Louis	Washington University School of Medicine; St. Louis Narcotic Treatment Programs; Malcolm Bliss CMHC (St. Louis); other teaching centers throughout the United States	To develop medical school curriculums for the university	Washington University School of Medicine	[illegible]dical students	1972-1975
NEW YORK Jules Gordon, M.D. Albany Medical College Albany	The college's department of psychiatry	To develop a medical school curriculum; to develop treatment and rehabilitation programs; to expand existing alcoholism and drug abuse programs	Albany Medical College; Capital District Psychiatric Center; St. Peter's Hospital; V.A. Hospital; Whitney-Young Community Health Center	Medical students	1972-1974

Career Teacher Grants (Cont'd)

ining vided by	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*	*Page number*
rious courses in aduate teaching, post-aduate education, social viance, public aspects of cohol and drug abuse	To develop an educational program in alcohol and drug abuse for the Medical School and a clinical program for University of Minnesota Hospitals	University of Minnesota Medical School; University of Minnesota Hospitals	Medical students and residents in family practice, medicine, pediatrics, and psychiatry	1973-1976	50
versity of Mississippi hool of Medicine; ylor University; Eagle-le Hospital and Rehabi-ion Center; V.A. spital	To develop educational, treatment, consultation, and research programs	University of Mississippi Medical Center	Medical students; other health professionals	1974-1976	50-5
hington University hool of Medicine; St. uis Narcotic Treatment grams; Malcolm Bliss HC (St. Louis); other ching centers throughout the United States	To develop medical school curriculums for the university	Washington University School of Medicine	Medical students	1972-1975	51
college's department psychiatry	To develop a medical school curriculum; to develop treatment and rehabilitation programs; to expand existing alcoholism and drug abuse programs	Albany Medical College; Capital District Psychiatric Center; St. Peter's Hospital; V.A. Hospital; Whitney-Young Community Health Center	Medical students	1972-1974	51

Career Teacher Grants (Cont'd)

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*
NEW YORK (Cont'd)					
Benjamin Kissin, M.D. State University of New York Downstate Medical Center Brooklyn	Development of a graduate-level thesis under supervision of executive faculty committees covering a teaching program, clinical services, research programs, and administrative structure; participation at Downstate Medical Center in activities of addictive disease program; visits to other programs and facilities in New York and east coast area	To develop an institutional program plan including a teaching and training program	State University of New York, Downstate Medical Center	Medical students; interns; residents; nurses; social workers; and others	1973-1976
Marc Galanter, M.D. Yeshiva University Bronx	Albert Einstein College of Medicine; Methadone Maintenance Treatment Program; Van Etten Program; Bronx Municipal Hospital Center of Alcoholism Treatment; LOGOS; State University of New York	To develop a curriculum in addictions including expansion of several existing programs in the undergraduate and graduate levels	Yeshiva University, Bronx Municipal Hospital Center, Department of Psychiatry	Medical students; residents in psychiatry; other trainees	1973-1976
John P. Morgan, M.D. University of Rochester Rochester	(a continuation of the career teacher's development, not otherwise elaborated)	To develop a course in drug abuse education for certificate, baccalaureate, and post-graduate levels; to develop a correspondence course for physicians and dentists at the university; to develop a course on legal aspects of drug abuse	University of Rochester School of Medicine and Dentistry, Department of Psychiatry	Medical and dental students; administrative and paraprofessional personnel	1975-197

Career Teacher Grants (Cont'd)

ining vided by	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*	*Page number*
velopment of a aduate-level thesis under pervision of executive culty committees covering teaching program, inical services, research rograms, and administra- ve structure; participation Downstate Medical Center activities of addictive sease program; visits to ther programs and facilities New York and east coast ea	To develop an institutional program plan including a teaching and training program	State University of New York, Downstate Medical Center	Medical students; interns; residents; nurses; social workers; and others	1973-1976	51-52
bert Einstein College of edicine; Methadone aintenance Treatment rogram; Van Etten Pro- am; Bronx Municipal ospital Center of Alco- olism Treatment; OGOS; State University New York	To develop a curriculum in addictions including expansion of several existing programs in the undergraduate and graduate levels	Yeshiva University, Bronx Municipal Hospital Center, Department of Psychiatry	Medical students; residents in psychiatry; other trainees	1973-1976	52
continuation of the reer teacher's develop- ent, not otherwise aborated)	To develop a course in drug abuse education for certificate, baccalaureate, and post-graduate levels; to develop a correspondence course for physicians and dentists at the university; to develop a course on legal aspects of drug abuse	University of Rochester School of Medicine and Dentistry, Department of Psychiatry	Medical and dental students; administrative and paraprofessional personnel	1975-1978	52-53

Career Teacher Grants (Cont'd)

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*
PENNSYLVANIA Sidney Schnoll, M.D. Philadelphia General Hospital Philadelphia	Examination of established treatment programs as well as those at Boston City Hospital, King's County Medical School, Roosevelt Hospital (Manhattan), Addiction Research Center (Lexington), and Baylor University	To design a curriculum for use in the university Medical School	University Medical School	Medical students; house staff; and practicing physicians	1973-1976
Kenneth Williams, M.D. University of Pittsburgh Pittsburgh	Allegheny County drug abuse facilities and other programs throughout the United States; alcohol abuse science research laboratories, clinical research centers, and treatment and educational programs	To design a course to prepare physicians for teaching in their own communities	A university affiliated community medical center	Medical students; practicing physicians	1973-1976
SOUTH CAROLINA Kim Keeley, M.D. Medical University of South Carolina Charleston		To develop a psychiatrist as a faculty specialist in drug and alcohol abuse; to improve and develop teaching and training programs within the university	Medical University of South Carolina	Medical students	1972-1975

Career Teacher Grants (Cont'd)

Training provided by	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*	*Page number*
Examination of established treatment programs as well as those at Boston City Hospital, King's County Medical School, Roosevelt Hospital (Manhattan), Addiction Research Center (Lexington), and Baylor University	To design a curriculum for use in the university Medical School	University Medical School	Medical students; house staff; and practicing physicians	1973-1976	53
Allegheny County drug abuse facilities and other programs throughout the United States; alcohol abuse science research laboratories, clinical research centers, and treatment and educational programs	To design a course to prepare physicians for teaching in their own communities	A university affiliated community medical center	Medical students; practicing physicians	1973-1976	53
	To develop a psychiatrist as a faculty specialist in drug and alcohol abuse; to improve and develop teaching and training programs within the university	Medical University of South Carolina	Medical students	1972-1975	53-54

Career Teacher Grants (Cont'd)

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*
TEXAS					
Joseph Schoolar, M.D. Alex Pokorny, M.D. Gary Byrd, M.D. Baylor College of Medicine Houston	(For trainees) Teaching and learning facilities of Baylor Outpatient Psychiatric Clinic and of various drug abuse and alcoholism centers, hospitals, clinics, laboratories, and services in the Houston area	To provide a full range of clinical and didactic experience for faculty-trainees of other universities and medical schools	Medical and other institutions whose faculty are sent to Baylor for training	Faculty trainees sent to Baylor from various medical and other institutions throughout the United States	1972-1978
David Eiland, M.D. University of Texas Medical Branch Galveston	University facilities; community-based programs	To design a curriculum for use in the University of Texas Medical Branch	University of Texas Medical Branch	Medical students, residents in psychiatry and family medicine; mental health professionals and paraprofessionals	1972-1974
Kenneth Blum, Ph.D. University of Texas Health Center San Antonio	Baylor College of Medicine; International Drug Education Training Center, Charity Hospital (New Orleans), National Free Clinic Council (San Francisco, Los Angeles), Downstate Medical Center (Brooklyn)	To design and amplify a curriculum and establish a community continuing education program	University of Texas Health Center Medical School	Medical and dental students; V.A. personnel; psychiatric residents; and other affiliates	1974-1976

Career Teacher Grants (Cont'd)

Training provided by	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*	*Page number*
(For trainees) Teaching and learning facilities of Baylor Outpatient Psychiatric Clinic and of various drug abuse and alcoholism centers, hospitals, clinics, laboratories, and services in the Houston area	To provide a full range of clinical and didactic experience for faculty-trainees of other universities and medical schools	Medical and other institutions whose faculty are sent to Baylor for training	Faculty trainees sent to Baylor from various medical and other institutions throughout the United States	1972-1978	54
University facilities; community-based programs	To design a curriculum for use in the University of Texas Medical Branch	University of Texas Medical Branch	Medical students, residents in psychiatry and family medicine; mental health professionals and paraprofessionals	1972-1974	55
Baylor College of Medicine; International Drug Education Training Center, Charity Hospital (New Orleans), National Free Clinic Council (San Francisco, Los Angeles), Downstate Medical Center (Brooklyn)	To design and amplify a curriculum and establish a community continuing education program	University of Texas Health Center Medical School	Medical and dental students; V.A. personnel; psychiatric residents; and other affiliates	1974-1976	54-55

Career Teacher Grants (Cont'd)

Award recipient and institution	*Training provided by*	*Goal(s) of training program*	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*
WISCONSIN Joseph Benforado, M.D. University of Wisconsin Madison	Scheduled visits to programs in the Madison area; specialized courses at National Drug Abuse Training Center, American Society for Pharmacology and Experimental Therapeutics, Federation of American Societies for Experimental Biology, and Alcohol and Drug Problems Association	To enlarge, coordinate, and integrate existing courses in the university; to train key faculty members of the university in alcohol and drug abuse in areas of psychiatry, law, social work, counseling, toxicology, and drug information centers.	University of Wisconsin Medical School and the University Hospital	Medical, pharmacology, and nursing students and other paramedical students	1974-1977

Career Teacher Grants (Cont'd)

	Goal(s) of training program	*Institution(s) benefiting*	*Personnel benefiting*	*Term of grant*	*Page number*
isits to n the Madi- pecialized National e Training nerican Pharma- Experi- erapeutics, of American or Experi- logy, and d Drug Association	To enlarge, coordinate, and integrate existing courses in the university; to train key faculty members of the university in alcohol and drug abuse in areas of psychiatry, law, social work, counseling, toxicology, and drug information centers.	University of Wisconsin Medical School and the University Hospital	Medical, pharmacology, and nursing students and other paramedical students	1974-1977	55-56

National Research Service Grants

Acetylcholine, 71
Acetylcholine (brain), effects of morphine, 70
Acetylcholine, turnover rates, 72
Acetylcholine-induced antinociception, 71
Acetylcholine synthesis, blockers of contrasted with effect of opoids, 68-69
ACh, activity of, 71
Addiction potential of compounds in morphine-dependent monkeys, 72
Agonist-antagonist properties of drugs, 64-65
Agonist and antagonist states of operant receptor, 64-65
Alcohol, metabolism by lung tissue, 69
Amphetamine, 63
d-Amphetamine, effects on complex behavior, 63
Amphetamine, neuroanatomical sites of action, 68
Analgesic drugs (narcotic), discriminative effects of, 63-64
Antinociception, acetylcholine-induced, 71
Apomorphine, 63
Behavior and drug abuse, 66
Behavior (learned), neurochemical correlates of, 72
Behavior (operant), effect of narcotics and narcotic antagonists, 71
Behavioral chains, effects of abused drugs on, 63
Behavioral conditioning and drug self-administration, 70
Behavioral effects of chronic morphine administration, 67-68
Beta-adrenergic receptor activity in morphine tolerance transfer, 71
Biochemical correlates to drug-induced internal stimuli, 59-60
Biochemistry and drug abuse, 66
Biogenic amine synthesis, inhibitors of, 63
Biology and drug abuse, 66
Binding, effect of protein-modifying reagents, 65. *See also* Narcotic binding; Opiate receptor binding; LSD, binding; 5HT, binding
Blood platelets, amine levels, 71
Bulbocaphine, 63
Catecholamine functions (brain) and drugs of abuse, 72
Cellular transport and binding of narcotics, 62
Change groups, structural study of, 64
Civil commitment and methadone maintenance, 61
Cocaine, effects on complex behavior, 63
Conditioning of drug reactions, *see* Pavlovian conditioning of drug reactions
Consciousness-raising (as a change group), 64
Culture, relation to drug response, 59
Cyclic AMP levels in morphine tolerance transfer, 71
Dependence (acute) neurochemical mechanisms underlying, 60-61
Dependence and binding of narcotics, 62
Diazepam, 59
Diazepam and methadone, interaction of, 68
Discussion, peer group in drug abuse prevention, 66-67
Dopamine, 63-64, 71
Dopaminergic neuronal mechanisms and drug abuse, 63
Drug abuse (as a change group), 64
Drug abuse and dopaminergic neuronal mechanism, 63
Drug abuse prevention and peer group discussion, 66-67
Drug administration, effects on subcellular neurochemical systems, 72
Drug response (individual), relation to culture and state-dependent learning, 59
Drugs (abused), pharmacology of, 72
Electrical stimulation (of brain sites), effects of opiates, 59, 63
Electrophysiological techniques in evaluation of effects of morphine, 69
Haloperidol, 63
Heroin addiction, 64-65
Heroin as a morphine analog, 61
Heroin, self-administration study, 66
5HT, binding, 65
5HT depletors, 71
5HT turnover rates in morphine tolerance transfer, 71
Hypothalamus, effect of morphine on, 62
Ileum preparation (guinea pig), 65
Immune assay of THC levels, 60
Inhibitors of biogenic amine synthesis, 63
Ionic binding and transport, interaction of synaptosomal membranes and narcotic drugs, 62-62
Learning (state-dependent), relation to drug response, 59
LSD, binding, 65
Lung tissue and narcotic drug metabolism, 69
MAO inhibitors, 71
Morphine, effect on putative amino acid neurotransmitters, 69
Morphine administration (chronic), behavioral effects, 67-68, 71
Morphine analgesia, 64
Morphine-dependent monkeys, addiction potential of compounds in, 72
Morphine effects on brain acetylcholine, 70
Morphine effects on discriminative action, 69-70
Morphine injection, in studies of operant behavior of rhesus monkeys, 71
Morphine tolerance transfer and synaptic activity, 71
Mescaline and brain tryptophan hydroxylase, 59-60
Metabolism of narcotic drugs by lung tissue, 69
Methadone, 63
Methadone and diazepam, interactions, 68
Methadone maintenance, 61
Morphine, 59, 60-61, 61, 62, 62-63, 63, 64, 69-70
Naloxone, effect on morphine response patterns, 67-68
Narcotic antagonists, 71
Narcotic binding, 64-65
Narcotic binding to synaptosomal plasma membrane, 61
Narcotic drugs, synaptosomal membranes and ionic binding and transport, interaction of, 62-63
Narcotic drug effects, neurochemical correlates of, 62-63
Narcotic self-administration, selective modulation of, 71
Neonates, effects of drug use on, by mothers during pregnancy, 68
Neural substrates, 59
Neurochemical correlates of narcotic drug effects, 62-63
Neurotransmitter systems and behavior, 63-64
Norepinephrine, 63-64, 71
Operant receptor, agonist and antagonist states of, 64-65

Opiate binding, 65
Opiate dependence in mice and rats, 72
Opiate receptor binding, 65
Opiates, reward effects, 59
Opiods and trophic disturbances, 68-69
Pavlovian conditioning, of drug reactions, 62
Peer group discussion and drug abuse prevention, 66-67
Pethidine, 63
Pharmacodynamic interactions of diazepam and methadone, 68
Physical dependence, acute, 60-61
Plasma disappearnace of methadone, effect of diazepam on, 68
Polyacrylamide gel electrophoresis, 61
Pregnant women, drug use effects, 68
Protein synthesis turnover or accumulation, 64, 71
Psychotherapy (as a change group), 61
Reserpine, in reducing antinociceptive action on ACh, 71
Reward effects of opiates, 59
RNA synthesis turnover or accumulation, 64
Seronergic activity in morphine tolerance transfer, 71
Serotonin, 63-64, 71
Serotonin, turnover rates, 72
Sodium, effect on binding of opiate agonists and antagonists, 65
Sodium, effect on tritiated agonists and antagonists, 65
State-dependent learning, 72
Stimuli (internal), drug induced, 59-60
Stress and drug abuse, 70
Synaptic activity and morphine tolerance transfer, 71
Synaptosomal membranes, narcotic drugs and inoic binding and transport, interaction, 62-63
THC (9-tetrahydrocannabinol), effects on complex behavior, 63
THC levels in body fluids, immune assay of, 60
Tranquilizers, 71
Trophic disturbances induced by opiods, 68-69
Turnover rates of serotonin and acetylcholine, 72
Uptake of narcotic drugs by lung tissue, 69